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IMPERIAL BUREAU
8 MAY 1930
OF MYCOLOGY

# Contents for January, 1925.


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**LAUNCESTON (for the Port Huon Co-op.), Alex. T. Marshall, Macquarie House, Cameron Street.**


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"FRUIT WORLD OF AUSTRALASIA."

Representing the Deciduous, Citrus and Dried Fruits Industry of Australasia.

Published the First of each Month.

**Editorial and Management Notices.**

**Articles and Photographs.**—The Editor will always be very pleased to receive articles and photographs for publication. Articles on spraying, pruning drainage, marketing, and other cultural matters, and reports of meetings, are welcomed. Please write on one side of paper only; include name and address (not necessarily for publication). Press matter sent in an open envelope, marked "Printer's MSS.," postage rate: 2 ozs., 1½d. Photographs, if sent in an open-ended package, marked "Photos. only," will travel at 2 ozs., 1½d. A short description of the photos. should be written on the back.

**We do not hold ourselves responsible for the views expressed by our correspondents.**

**Subscriptions.**

The annual subscription, post free within Australia and New Zealand, is **8/6.** All other places, **10/6,** post free. New subscriptions can commence at any date. Subscribers should notify us immediately of any change of address.

**Renewal Subscriptions** are due during the last month of the term covered by the previous payment, and unless notified to the contrary, the fact that the subscriber continues to accept delivery of the journal, is taken as proof that continuation of the subscription is desired, and we will continue to send regularly until notified in writing or copies are returned through the post.

**Advertisements.**

"The Fruit World of Australasia" is an advertising medium of proved value. Advertising rates may be had on application to our Head Office, or to agents in the various States, as set out below.

**Changes** of copy for advertisements must be in our hands on or before the 17th of the month prior to publication.

Readers are asked to make their purchases from our advertisers, who cover all lines of interest to orchardists, at the same time mentioning this journal. By so doing, the grower, the advertiser, and this paper will benefit.

Every care is taken to publish advertisements from reliable houses only, and to see that advertisements of an undesirable nature are not published. The management reserve the right to refuse to publish any announcements that they may regard as undesirable, either from the point of view of the goods offered or in the wording of the advertisement, notwithstanding the fact that a contract may have been entered into for the use of a certain space.

"The Fruit World" Offices (where copies and full particulars are obtainable) are as follows:—

**Victoria** (Head Office): 9 Queen Street, Melbourne. **New South Wales:** Carruthers, Farrum & Co., 77 King Street, Sydney. **South Australia:** W. F. McConnell, Grenfell Buildings, Grenfell Street, Adelaide. **Tasmania:** Saunders & Co., Murray Street, Hobart. **Western Australia:** D. L. Hetherington, Colonial Mutual Buildings, St. George's Terrace, Perth. **Queensland:** Gordon & Gotch Ltd., Queen Street, Brisbane. **New Zealand:** Gordon & Gotch Ltd., Wellington, Dunedin and Auckland. **Great Britain:** Harvey H. Mason, 1 Mitre Court, Fleet Street, London, E.C., England.

R. E. BOARDMAN, A.F.I.A., Managing Director and Editor.

E. H. WRAGG, Secretary and Advertising Manager.

**Tasmanian Director:** HON. L. M. SHOOBRIDGE, M.L.C.

THOUGHT FOR THE MONTH.

LIFE SHOULD BE FULL OF EARNEST WORK,
OUR HEARTS UNLASHED BY FORTUNE'S FROWN,
LET PERSEVERANCE CONQUER FATE,
AND MERIT SEIZE THE VICTOR'S CROWN.
THE BATTLE IS NOT TO THE STRONG,
THE RACE NOT ALWAYS TO THE FLEET,
AND HE WHO SEEKS TO PLUCK THE STARS,
WILL LOSE THE JEWELS AT HIS FEET.

—CARY.

# Editorial.

**1925.**

WE stand at the dawn of another year. 1924 has passed down the vista of the years, with all its problems, its failures, its successes. Nationally and individually, we have made mistakes and have won victories. New joys have entered into our family circles, and familiar faces have disappeared. With all its hopes and fears, joys and sorrows, victories and defeats, gains and losses, the old year has passed forever into history. Who would recall it?

The New Year opens out before us with all its possibilities. We must face it with courage, faith and patience.

The problems that confronts us individually and as an industry call for a large measure of determination, devotion and self sacrifice. In our family life, our social and business life, we must recognise the truth of the words written by St. Paul—"Ye are members one of another."

If individually we have learned to place due emphasis on character building, and have surveyed this generation as our opportunity for rendering service, then are we in the way of being fitted for the larger duties to benefit our fellows and generations to come.

As an industry, as a nation, and as an Empire, we are passing through strenuous times—times which call for the development of the best that is in us.

But in the midst of pressing problems it is good to pause to take that wider view. Can we picture ourselves ten years hence looking back at our attitude towards the dawn of the year 1925?

In these busy days all legitimate enterprises take their rightful place, whether it be the making of money, the enjoyment of sport or leisure, or the manifold activities with which these lives of ours are filled. It is the worship of any of these ends which is low and degrading. God has said, "Thou shalt have no other gods before me"—and if we worship money or sport, or if we lower our ideals of citizenship, then are our finer qualities warped, they become atrophied and die.

Australia and the Empire call for our best energies to serve this day and generation. On every hand there are opportunities for service which will keep alive the Divine spark and give an inward glow of satisfaction that can be gained in no other way. A noble character is better than great riches.

* * *

There are pressing problems ahead of certain sections of the fruit industry. They must be tackled in a spirit of mutual helpfulness. In no other way will they be solved. Where Governmental activities have left the industry struggling under disabilities, the case must be fairly faced, and the necessary remedial measures decided on. There are many brains, and there is as much ability amongst the men in the fruit industry as in other sections of commercial activity. Much of this talent is latent. Our forces must be united, and there must be no clouded issues.

And as regards those sections of our big and expanding industry which are not as yet under the baneful influence of Government domination, let us be warned in time, and where organisation is needed, and where improvements should be brought about, then let us see to it that leaders are selected with high purpose, clear vision and winsome personality to bring our industry into that position of prosperity which its importance warrants.

We must have self-reliance, initiative, faith in the future and high ideals of citizenship thus to overcome our present problems and secure that splendid success which is the just and certain reward of those who build on sure foundations, and who labor in the spirit of a conquering faith.

# Imperial Preference.

**£1,000,000 Annually for Developing Markets.**

Cable advices from London on December 17 are to the effect that Mr. Baldwin in the House of Commons announced that £1,000,000 would be allocated annually for the development of markets for Dominion produce.

Mr. Churchill, Chancellor of the Exchequer, said the proposed expenditure on Empire objects, instead of imposing food duties, would be on not dissimilar lines from the Imperial Conference proposals of 1907 for improved communications and marketing with the idea of popularising Empire products.

The first things that would be remitted to the economic committee were meat and fruit. It was impossible to touch meat and fruit by

taxes, but he hoped to devise a plan which would somewhat alter the course of trade, benefit the Empire and benefit Britain's own people without taxing food.

* * *

This may mean—(1) that the proposed duty of 5/- per cwt. on American Apples will not be imposed (2) That as regards "fruit," first attention will be given to dried and canned fruits; and (3) that the preferential proposals (as set out in last month's "Fruit World") will be in the nature of reducing the duties which are now imposed on Dominion products, allowing the duties to remain against all others. To secure the desired advantages the Dominions must continuously send forward the right quantities of fruit to compete with the fruit which other countries will continue to send forward.

## DRIED FRUIT LEGISLATION.

In order that all growers of dried fruit (Currants, Sultanas, and Lexias) shall provide an equal proportion of the export quota, a Bill was introduced into the South Australian Assembly, and has passed all stages making it compulsory for every grower to set aside a certain percentage of his crop for export.

* * *

In Victoria the Government introduced a similar measure, but strong opposition developed amongst the Government supporters over several clauses which were considered to be too drastic. The Bill was temporarily withdrawn to allow the conflicting parties to settle their differences. Sundry amendments were then introduced, and the Bill was passed.

The Bill provides that the Board which is to be constituted) shall have powers respecting the sale or marketing in Victoria of dried fruits not purchased or acquired by the Minister for export.

The proportion of fruit for export is to be determined by the Board.

## DRIED FRUIT EXPORT.

### Growers Favor Control.

Under the Dried Fruits Export Control Act it was provided that a poll be taken giving the growers an opportunity to vote for or against the measure.

The voting shows a large majority in favor of the Ministry's proposals. Thus 2,287 voted for the Act coming into operation, and 147 against, the majority in favor being 2,140. Practically 50 per cent. of those entitled to vote exercised the privilege. Unopened voting-papers to the number of 111 were disallowed, while three votes were rejected. In Victoria, out of the 2,283 papers issued, 1,364 were returned. In South Australia only 995 papers were returned out of 2,389.

## Personal.



MR. J. F. KRUGER

Mr. J. F. Kruger, a Director of the firm of White & Son, Fruit Brokers, Hull, England, is now visiting Australia. Mr. Kruger firmly expresses the opinion that the market for Australian Apples in England should be good this year, particularly because of the shortage of American Apples.

In regard to marketing generally, Mr. Kruger states that Australian growers would be best served if they concentrated their offerings for sale in the auction rooms conducted by the Federation of Fruit Brokers, members of which organisation issue catalogues before and after sales.

Prior to leaving England, Mr. Kruger was tendered a complimentary dinner attended by a distinguished company. Cordial references were made in regard to the fact that much additional trade had come to Hull as a result of Mr. Kruger's world-wide trips, to the benefit of the consignors.

Col. E. E. Herrod, Secretary of the N.S.W. Fruitgrowers' Federation, and Secretary of the N.S.W. Citrus Association, visited Melbourne during December to represent his growers in the pending Arbitration case.

Mr. James Collins, of Redlands Bay, has returned from his tour of America, Great Britain and the Continent. Mr. Collins visited all the fruitgrowing centres of note, and his opinion of Australian methods compared with those he had seen during his tour, is as follows:—America is a few years ahead of Australia, and Australia is 100 years ahead of anything he saw on the Continent.

Mr. Collins is a keen student of fruitgrowing, and has seen the Redlands Bay area of Queensland rise from nothing to a veritable garden of Eden, where, from the luscious Papaw to the Monstera Deliciosa, grows to perfection.

The vacancy in the Legislative Council caused by the death of Mr. H. D. Calvert, Waterloo Geeveston, has been filled by the election of his brother Mr. W. H. Calvert, of Forest Holme, Ranelagh. Mr. W. H. Calvert is a member of the Port Huon Fruit Growers Association, and a prominent Tasmanian orchardist. His popularity may be gauged by the fact that he was elected on the first count, having a greater majority than the total votes of both his opponents.

Mr. H. Hamilton, of Bagdad, has been elected to fill the vacancy on the State Fruit Advisory Board in the place of Mr. H. D. Calvert, deceased.

Mr. A. H. Benson, Director in Fruit Culture, has been granted his long leave of absence (six months) commencing January 1st, 1925. Mr. Geo. Williams, who has been Instructor in Fruit Culture for many years, will, it is understood, fill the vacant chair during the Director's absence. Mr. Williams has had considerable experience in tropical fruits, he having been engaged among them for the best part of his life.

## OBITUARY.

The death of Mr. W. H. Harvey, of Montville, Queensland, on December 5th is regretfully recorded by our Queensland correspondent.

The late Mr. Harvey was a successful grower and a far-seeing pioneer, widely respected wherever known. Whenever visitors went through the Blackall Ranges, a welcome call was invariably made at Mr. Harvey's citrus grove. Queensland,—and all Australia, loses a genuine and generous citizen.

### Australian Fruit Exports.

We are asked to draw attention to advertisements appearing on pages xviii, 1, 42 in this issue. Tasmanian growers may ship to the members of the Federation of Fruit Brokers therein mentioned through the following:—

Hobart. — The Port Huon Fruitgrowers' Co-op. Association Ltd. and Launceston, Mr. Alex. T. Marshall (who is the representative of the Port Huon Co.), Macquarie House, Cameron-street, Launceston.

Mr. H. G. Colombie, who represents several of the leading Fruit Brokers, directs special attention to the fact that these firms issue catalogues both before and after sales, giving details of each brand, variety, size, and the prices actually paid.

The Annual Show of the Somerville Fruitgrowers' Horticultural and Agricultural Association will be held on March 11th, 1925. For full particulars, apply to the Secretary, Mr. Hary G. Overton, of Somerville.

# Bounty on Canning Fruits

## Deputation Sees the Prime Minister.

## The Sugar Burden Discussed.

### Prime Minister Refuses Bounty, and Declines to Indicate the Policy Regarding Sugar.

A DEPUTATION representing fruitgrowers, co-operative and proprietary fruit canners, the jam manufacturers, and the consumers, waited on the Prime Minister (Mr. Bruce) on December 11th. The Minister for Customs (Mr. Pratten), and the Assistant Minister (Senator Wilson) were also present.

Fruitgrowers asked for a reduction in the price of sugar or a bounty on the production and export of canned fruit. Mr. Bruce refused the bounty, and declined to indicate the Ministry's policy with regard to sugar.

Mr. W. J. Foster said that fruitgrowers, on examining audited figures, had found that their cost of production had been greater than their income. Expenses had doubled and trebled. Fruitgrowers recognised that the sugar industry was essential, but why should another branch of primary production die to save it? Proprietary canners who were engaged in jam-making had promised that if a concession of £10 a ton were granted in the price of sugar they would pass it on to the fruitgrowers.

Mr. F. J. Churches (Kyabram) said that in order not to injure the sugar industry the co-operative growers of his district were not asking for cheaper sugar. What protection was necessary for the sugar industry was purely a matter for the Ministry to decide, so long as it compensated fruitgrowers proportionately. Therefore, they asked for a bounty, which was absolutely essential to build up an export trade.

Mr. W. Young (Goulburn Valley) said that fruitgrowers were being sacrificed to the sugar industry, and were at present living chiefly upon hope and credit. Australian growers were further harassed by Commonwealth Arbitration awards and the high tariff. South African growers had none of these disabilities to contend against, and the result was that South African jam was being imported into Australia. **A number of growers in the Goulburn Valley were forming a syndicate with the intention of migrating to South Africa. He did not want to go to South Africa, but unless something was done he would not stay in Australia to face ruin.**

Mr. A. W. Fairley (representing the Victorian co-operative canners) said that if the industry were not to be extinguished, export bounties must be again granted this year.

A returned soldier delegate said it was degrading for fruitgrowers to have to apply to the Government year after year for assistance, but they claimed the right to have their industry stabilised. A bounty was imperative.

Mr. R. Duthie (Q.) said that no reduction in the price of sugar would help them in regard to the canning of Pineapples. The export bounty on processed fruit should be granted for the 1925 pack.

Mr. H. Tate (N.S.W.) said that the position of jam-makers in New South Wales was similar to that in Victoria. If the concession of £10 a ton on the price of sugar were granted the manufacturers which he represented would undertake to pay higher prices to the growers for fruit and to reduce the price of jam 1/- a dozen tins.

Mr. H. J. Williams (representing Victorian proprietary canners and jam manufacturers) suggested that the protection to the sugar industry should be limited to £6 a ton, and that any further assistance which the sugar industry required should be granted in bounties on production, chargeable to the White Australia policy and defence.

Sir Henry Jones (Tasmania) said that every time the Ministry increased the protection to the sugar industry it reduced the consumption of jam. This was ruinous to the fruitgrowing industry, which was suffering from over-production. It was impossible under Australian conditions to expect Australian jam to compete in the world's markets without a bounty. Jam manufacturers and fruit processers were not asking to be allowed to use black grown sugar. That would be a mistake. In Australia, where everything else was protected, it was only right that the sugar industry should be assisted, and that the fruitgrowing industry should also be assisted.

Messrs. S. Dickson (South Australia) and E. P. Hill also spoke.

Mrs. A. W. Glencross (Federal President of the Housewives' Association) said that housewives relied upon a promise by Mr. Bruce that the sugar industry would have to stand upon its own feet upon the termination of the present agreement. If Mr. Bruce had gone further north in Queensland he would have found that the industry was being conducted largely by foreign labour——

The Prime Minister: Do you know the percentage of Australians in the industry?

Mrs. Glencross: No, but we are all aware of the recent tremendous influx of foreigners. Continuing, Mrs. Glencross said it was fallacious to ask Australians to pay a higher price for sugar to support the white Australia policy.

The Prime Minister: I have not unlimited time, and the points to be made must be those which will be of assistance. Do your people say that this industry should not be given sufficient protection to maintain it under Australian conditions?

Mrs. Glencross: We are quite prepared to give it the measure of protection which it enjoyed two years ago. That should be enough.

Mrs. A. Thomas (Victorian President of the Housewives' Association) said that her association had been distributing fruit for several years, and had found that the prohibitive price of sugar **prevented housewives from using as much fruit as they would like.**

**"No Necessity for Bounty."**

In reply, the Prime Minister said that the Ministry, after full consideration, had decided that there was no necessity for a bounty on canned fruit. It was only on very strong representations that he had agreed to hear further argument for a bounty, but no new points had been brought out. The Cabinet would again consider a bounty in the light of representations made, but he would not mislead the deputation with false hopes. So far as the home market, the higher costs were counterbalanced by the fact that people were receiving higher wages, and had greater purchasing power. In the overseas market, the grower, while still having his production costs increased by the policy of protection, did not have the advantage of a consuming public with a correspondingly increased purchasing power. If fruit, processed or otherwise, sold at a reasonable price in the world's market, then the industry certainly had no claim to a bounty. Pears were now selling in the world's market at a profitable price. There was more doubt about the position of Apricots and Clingstone Peaches. There were no means yet of telling what the prices for these fruits would be this season. Nothing at the present juncture would justify the Ministry in proposing an export bounty. There might be something in the future which would justify it, but not yet. In fact the prospects in the British market at present were better than they had been for a long time.

In view of the fact that the Sugar agreement expired in June, 1925, he wanted to hear the views of the fruit industry. Statements made that morning showed that some people did not appreciate the position. Sugar and fruit were both important industries, and the Ministry desired to give them both equitable treatment. This being a protectionist country, sugar was entitled to that measure of protection which other industries enjoyed. Even if every iota of protection given to the sugar industry were removed, it would still be utterly impossible to

sell sugar in Australia at the pre-war price. As to what the Government intended to do he had no intention of giving them even a hint. All representations made would be fairly considered before a decision was reached.

* * *

The reply given by Mr. Bruce is not satisfactory. The Government cannot evade its responsibility in this matter.

The deputationists and the people they represent are deeply disappointed in the attitude of the Prime Minister. It suited Mr. Bruce to ask if his auditors were aware of the percentage of Australians in the sugar industry. It was a "catch" question, and one unworthy of the questioner. If Mr. Bruce is unaware of the flood of foreigners pouring into Queensland, it is about time he became acquainted with the facts. But of course he knows—only he preferred to ask a question in a suggestive way to hint that the number of foreigners was not so great as his hearers imagined.

However, if Mr. Bruce wants to speak in percentages, he might enquire what percentage of foreigners "signed on"for field work at Innisfail this season, and he will find that 95 per cent. were Italians and Greeks.

The Queensland sugar industry is allegedly "magnificently" organised, yet it is curious to notice the disputes which are perpetually arising. The Court is always busy, the men are for ever seeking variations of the awards. The waste of time is appalling. Twenty-seven disputes occurred in one district in a short space of time. Some of these disputes were absurdly trivial, yet they caused losses totalling thousands of pounds.

* * *

Again, at the deputation referred to, a profitless bandying of words was indulged in regarding the attitude of the "housewives" as to the methods for "keeping alive" the sugar industry. Such remarks were quite out of place. It goes without saying that the sugar industry is an Australian one, quite important, and that Australia is willing to support the industry. But the aggressive and oppressive methods of the sugar industry are not in harmony with the Australian spirit.

We affirm that justice can be done to the fruit and other industries without harming the sugar industry. The latter should be the servant of the people, not its dictator and master.

Fruitgrowers were hoping to meet Mr. Bruce at Shepparton, in the heart of the Goulburn Valley district. Naturally they are disappointed that the Prime Minister could not visit that centre to meet the growers face to face, and to hear the unvarnished facts from men representing the big and important primary industry of fruitgrowing. This disappointment is accentuated because of the inclusion (the word was almost written "intrusion") of other interests at the recent deputation.

Doubtless it is important for the housewives and consumers to put their side of the case to the Prime Minister, but we question the wisdom of so doing when the fruit industry had its own definite views to put forward. In fact, Mr. Bruce had to remind Mrs. Glencross that his "time was not unlimited,"

It would have been better, for such time as the Prime Minister could spare, to have concentrated on the real problems confronting the fruit industry. The battle of wits between two clever and courteous people such as Mr. Bruce and Mrs. Glencross was doubtless entertaining, but of what avail? Even then Mrs. Glencross had the last word.

Meanwhile representatives of the growers had to "bottle up" some important facts which might profitably have been brought forward.

Then, again, there was a misunderstanding amongst the growers as to the scope of the deputation, and some important interests were not represented.

The difference of opinion between the co-operative and proprietary fruit canners regarding the effect of the high sugar prices on their respective concerns is unfortunate, especially as this matter was dragged into prominence at the deputation. A matter of principle is involved, and only a united front can bring relief.

* * *

Thoughtful, far-seeing men in the fruit industry are under no illusions in regard to the direct harm which has been done to the industry through several causes, primarily by Government action in one form and another. Apparently, too, the evils are to continue unless they are met by the same political weapons now used by those, who in harming the fruit industry, are harming this young nation and the Empire.

## GERMANY—AND AUSTRALIAN FRUIT.

### Hamburg Can Take Substantial Quantities of Apples.

Australian Apple exporters have felt the loss of the German markets very keenly, so the advice of the Trade Commissioner to the General Manager of the South Australian Government Produce Department, that Germany is likely to want direct shipments next year, is welcome news.

The Trade Commissioner states that fruit from other producing countries is now going to Germany, and that approximately 2,000,000 cases of Oranges from Spain were handled through Hamburg between November and May last. The Italians are also forwarding citrus fruits through this port, which appears to be regaining its place as a clearing centre for fruit for Germany and middle Europe.

Owing to financial difficulties no direct shipments of Apples were made from Australia to Germany last year, but approximately 60,000 cases, chiefly from Western and South Australia, were re-shipped from the United Kingdom to Hamburg, and sold at prices ranging from 15/- to 25/- per case for Cleos., and 15/- to 23/- per case for Dunn's. The market was very sensitive, however, and when large consignments were sent the market fell.

In 1914 Australian shippers sent 400,000 cases to Hamburg. The South Australian Trade Commissioner states that Germany is not able to take anything like the pre-war quantities at present, but suggests that next season satisfactory financial arrangements may be possible, and if this is so, it is hoped that shipping facilities will be available for the Produce Department to make direct shipments of some fruit to Hamburg.

The varieties required are chiefly Cleos., Dunn's, and Jonathans, and it is expected that the market will absorb 30,000 cases each fortnight during the season at prices approximately 2/- per case above London values.

The Trade Commissioner is keeping closely in touch with the German market, so that fruitgrowers will be able to obtain full information from the Government Produce Department.

## BOW-WOWS STILL WAITING.

"My grandpa notes the world's worn cogs,
And says we're going to the dogs.
His grand-dad in his house of logs,
Swore things were going to the dogs.
The caveman in his queer skin togs,
Said things were going to the dogs.
But this is what I wish to state—
The dogs have had an awful wait."

## RAISIN' CAIN.

There was an old maiden antique,
Who put daubs of rouge on her chique.
She chewed up a raisin,
The change was amazin',
Her complexion is now quite unique.

* * *

Fortunately for the perpetrator of the above, his identity is unknown. Our Fighting Editor has been in a frightful state ever since the lines came into the office. He has a shrewd suspicion of the name of the scoundrel, so a certain gentleman who parts his hair on the left side had better beware. We have given the Fighting Editor a 3d. packet of Raisins every hour to pacify him, but the blessed stuff only keeps him more fit. We heard him muttering between munches—

"That fellow's a frique,
I'll punch his bique."

# Citrus Notes.

## CITRUS SPRAYING AND FUMIGATION.

It does not seem to be generally known amongst citrus growers, writes Mr. E. L. Walter, F.R.G.S., representing the Darling River Irrigation Co. Ltd., Wentworth, N.S.W., that in South Australia spraying or fumigating for Red Scale is compulsory. In that State, as elsewhere, it is an interesting problem for the citrus grower, who realises the necessity for treating his trees, which is the better, spraying or fumigation. This is being put to a practical test at Paradise (just outside Adelaide). A portion of an orchard affected with Red Scale has been taken over by Government officials, who will concentrate on fumigating. Another portion has been over by the Vacuum Oil Co., who will concentrate on spraying. The final arbiter of the success of either method is the South Australian Government.

It is contended in favour of spraying that it has so many advantages over fumigating that even if the results are similar the former must win. It costs only about one-third the cost of fumigation and the percentage of "kills" by either system will follow the thoroughness with which it is applied. It is further claimed that spraying has a great tonic effect on citrus trees, making them healthier and to that extent, more capable of throwing off fungus or such diseases.

It will be vitally interesting to watch the result of the experiment now being carried on at Paradise, and the Government's eventual verdict.

Mr. Stoneman, of the Vacuum Oil Co., an expert and enthusiast of spraying, has been spending some time in the two New South Wales settlements, Curlwaa and Pomona. He is a convert to the opinion of other experts that these two N.S.W. settlements stand alone so far as citrus growing is concerned.

At Curlwaa, Mr. Stoneman found about 25 per cent. of the citrus carrying Red Scale, but none at Pomona, where the trees are wonderfully free from scale and other pests. He has made arrangements with Mr. H. B. Ridgley, of Curlwaa and Mr. W. J. Beal, of Pomona, to conduct a series of experiments, spraying the orchard of the former for Red Sale, and the orchard of the latter as a tonic. His company will undertake to keep up these experiments for a period of five or six years. This will give all growers in the district a valuable opportunity of seeing the question of spraying for scale and tonic put to a practical test for their common good.

## PRICE OF LEMONS.

### Australia and U.S.A. Compared.

The Editor, "Fruit World,"

Sir,—We should be glad if you could see your way to publish the enclosed correspondence in regard to the price of Lemons to manufacturers.

During the last season it was suggested by some growers that the manufacturers should pay £14/10/- per ton year in and year out for Lemons for manufacturing purposes whether the crop were large or small. While we do not consider this sound business, we should be very pleased to pay this price if we could pass it on, but we are afraid we should lose our export trade which represents a large share of our total sales of Lemon Squash.

We, therefore, made some enquiries as to the prices charged manufacturers in California, and we find that they only pay from £2/5/- to £4/10/- per ton, as shown in the enclosed letter. If the growers were to carry out a policy of charging us an excessive price for Lemons, it simply means that rather than lose our export trade we should be prepared to open a factory in California to take care of it or supply from our Capetown factory.

We believe that the Californian Fruitgrowers Exchange and other similar co-operative organisations have been held up as a model for the Australian growers to copy in regard to the organisation of sales of citrus fruit.

We should be very pleased if the local growers would follow their methods and see that the manufacturers get a fair deal.

Yours faithfully,
C. M. BROOKE & SONS.
Melbourne 10/12/24.

* * *

The following is a copy of the letter sent by Messrs. Brooke's to San Francisco:—

To the California Fruit Growers' Exchange, San Francisco, Cal.,

Dear Sirs,

Lemons.—We are interested in knowing the cost of Lemons to manufacturers in California. Would you please enquire and advise us the prices of the following grades or whatever sorts are sold to manufacturers.

1. Small Lemons 2 inches or under in diameter.

2. Large Lemons, say 2½ inches in diameter and over.

3. Lemons with blemishes on the skin.

Any information you can supply in this connection will be appreciated by us.

Yours faithfully,
C. M. BROOKE & SONS.
Melbourne, 31/6/24.

* * *

A copy of the reply to the foregoing letter is as follows:—

CALIFORNIA FRUIT GROWERS' EXCHANGE.
"Sunkist,"
Oranges—Grapefruit—Lemons.
Offices of Northwestern Division Manager, 301 Consular Building, San Francisco, California.

Sept. 22nd, 1924.

To C. M. Brooke & Sons,
South Melbourne,
Gentlemen:—

Replying to your letter of June 21st, we regret that there has been considerable delay but it was due to our endeavouring to determine what kind of fruit you would require for your purpose, and still be fruit that would carry for export.

We do not understand from your letter that you are asking for quotations but rather to get a line on this grade of fruit as it is sold to manufacturers. The Lemons you describe have sold the past season for from 10dol. to 20dol. per ton at the packing house. It is not, however, fruit that would do for export, because it is not long keeping quality, but it is entirely satisfactory for prompt use for by-product purposes.

It is difficult to predict the selling price of this fruit for the coming season, but possibly you could figure about 20dol. per ton at the packing house as a maximum figure.

Very truly yours,
CALIFORNIA FRUIT GROWERS' EXCHANGE,
W. C. MacPherson, (Sgd.)
Division Manager.

* * *

We have published the foregoing correspondence in full as requested for the information of readers, but would add that the price of £4/10/- per ton at the packing house would not pay Australian growers. Lemon growers in California, by intensive organisation and advertising, have developed a big and profitable market for their fruit, and from the correspondence published it would appear they are content to receive twenty dollars per ton, at the packing house, for the culls.

Further correspondence on this subject is invited. (Ed. "F.W.")

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Owing to the ravages of the Citrus Bug the coming citrus crop in Queensland has been seriously reduced.

## A PROFITABLE CITRUS ORCHARD.

### The Steps by which it was Established.

SUCCESS in the establishment of a citrus orchard may be said to depend upon attention to a number of details, neglect of any of which may seriously prejudice the whole venture. Quite apart from the choice of the site in relation to soil, aspect, and locality. there are such factors as the preparation of the land, the selection of the trees, and the care of the plantation in the younger stages, each of which involves many points that may greatly affect the ultimate result.

In these respects every orchard no doubt has its lessons to teach, but nothing is of such positive value to growers generally as the steps by which a really profitable block has reached the stage of full growth.

Instead of dealing with a hypothetical citrus grove, the following information describes in detail the establishment of a profitable property on the Penang Mountain, six miles from Gosford, N.S.W. (states the "Agricultural Gazette").

#### The Preliminaries.

The owner of the property had had the project in view for years, and every step that led up to the stage at which the trees were planted out was taken with careful attention to detail—such care, in fact, as to make the orchard to-day an object of pride to the original planter and of profit to the present owner.

Mr. A. T. Hunter, then Fruit Inspector of the Department of Agriculture, stationed at Wahroonga, but now located at Castle Hill, had selected a 40-acre block on "the mountain," with a grey-coloured free-working, sandy loam, well timbered, with permanent water, and northerly aspect.

An area of 10 acres was cleared as a beginning, and in anticipation of planting was thoroughly well ploughed to a depth of 9 inches in May, 1914. The ground lay in the rough all the winter, and staking-out—calculated at distances of 18 ft. 6 in. by 22 feet to suit the land—was carried out in July, the holes being broken up with a pronged hoe to get a fine tilth that would give the roots of the young trees ample free soil for development.

To afford plenty of room for turning, a headland of 33 feet was left all round, and against the fences breakwinds were planted, consisting of Callitris cupressiformis on the southern boundary, and of Pinus insignis on the western side. On the eastern side the neighbour had already planted Pinus insignis close to the fence. Inside the breakwinds on the southern and western sides, and close to the fence line on the east, a drain 3 ft. 6 in. deep was opened up to take the drainage and keep back the roots of the trees in the breakwind and the bush. These drains were necessary to carry the drainage into the permanent stream on the northern side, as the country is of a type that is apt to hold water.

Certain damp patches threatened to be troublesome, and there underground drains were put in connecting with the open drains round the outside. To-day these drains are still well preserved, and the present owner of the property, Mr. S. Spencer, in undertaking an extension of the orchard is adopting the precaution of extending the drainage system also.

#### Choosing the Material.

As already suggested, the establishment of this orchard was a matter of deliberate preparation. Mr. Hunter was planting for himself, and it was an essential part of his programme that only the best of material should be used. The seeds from which the stocks were raised were personally selected two years before from a good, vigorous, common Lemon tree at Narrabeen, and were sown in a suitable spot on the North Shore line.

From the seedlings so obtained only the best were transplanted into nursery beds in sandy soil, which for nursery stock is a particularly desirable soil medium as producing a large and healthy root development. There they were budded in March, 1913.

And by the budding hangs half our story. The orchard is to-day a testimony to the value of using wood with a known history. The 520 Valencias form as fine a bed as could be seen—well-grown, well-shaped, even, and carrying regular crops of uniform quality.

The Washington Navels (99 in number) tell the same tale, both to the eye and to the banker. So do half the Mandarins planted. The other half of the Mandarins—bought as worked and recommended as something special—grew to maturity and then had to be grubbed out as worthless.

In other words, the trees worked by this intending orchardist himself proved all that could be desired—the only block that turned out otherwise was made up of trees that were bought. Unfortunately, the experience is not an isolated one, for many a man who has begun the serious business of planting an orchard, expecting it to be a lifelong pleasure and profit, has suffered disappointment and loss. It serves to emphasise once more the extreme importance of a knowledge of the material from which an orchard is to be built up.

#### What "Bud Selection" Involves.

Truth to tell, ideas about the method by which such material is to be selected have been undergoing considerable alteration during the last few years. Many fine beds of citrus trees can be pointed to in this State which have been obtained by taking budding wood from trees known to be of good bearing habit, but the impression has latterly been gaining ground that it is insufficient to choose a good tree for the purpose. Growers have long observed a wide discrepancy between individual fruits borne on the same tree.

The work of A. D. Shamel in California has brought to light as many as ten totally different types of fruit on the same tree, and to-day growers in our citrus districts have come to recognise the significance in relation to the planting of new orchards of the fact that no class of fruit shows so great variation on one tree as does citrus.

Under the influence of growers' own observations, and of the work of Shamel and others, it is being realised that there is a probability that buds taken from wood that has borne undesirable types will produce similar fruits, while the chances of getting really good marketable specimens are improved if only wood is used which has borne fruit of that class. That variations will occur even under the best of conditions as to selection is admitted, but at least probabilities are decidedly improved if preference is given to the best bearing wood.

#### Best Done in Early Autumn.

"It's easy to take wood that is not producing good fruit if you have not the fruit to guide you," said Mr. Hunter, standing a few weeks ago in front of a promising-looking Navel tree in a neighbouring orchard. "Here's a twig with nice plump buds, and round, full wood, but the fruit is of poor quality. If budding wood is taken in the spring after the fruit is off, that would look like a desirable twig. The best time to bud is in early autumn. Then the wood can be selected while the fruit is on the tree, and though no doubt a bit green, the type is becoming apparent. No one would then choose such a twig as this." Walking round the same tree, he picked up an equally good piece of wood with the additional recommendation of a fine specimen of fruit still hanging. "It means sacrificing the fruit to cut this wood in the autumn, of course, but you then get budding wood that you can feel confident is likely to give a profitable tree."

"It may cost a few cases of fruit to get an orchard," said Mr. W. B. Stokes, Orchard Inspector at Gosford, when the same question was under discussion, "but you have the satisfaction of knowing you have done your best to keep up the type."

Nor is the idea limited to officers of the Department. In citrus districts one finds the best of growers beginning to assent to the proposition that budding wood should be taken from behind the fruit.

# Victoria

## District Notes.

### Pakenham.

Mr. J. F. Moody, Manager Toomuc Valley Orchards, reported on 7th Nov. —The season in this district is the wettest on record and it has been most difficult to carry out the spraying and routine work. Since the 21st September to date we have had no less than 1,073 points of rain, and the fact that we have had only 13 working days without rain out of the total of 42 working days for this period gives some idea of our spraying difficulties.

Three Lime Sulphur sprays—1 in 15 with black leaf 40,—1 in 20 and 1 in 40, with Lead Arsenate, were applied with excellent results. Our crop is patchy, the very wet weather at blossoming time seriously interfered with the setting of the fruit.

**Apples.**—Jonathans. The older trees are very light, younger trees good. Londons fair crop, only early blossom set well. King David, Delicious, Sturmers, and Winesap good; Statesman and Rokewoods very patchy. Yates, patchy; some blocks even lighter than last season, but general average good.

**Pears.**—Kieffer, Williams, B. Caps, Anjou, Clairgeau, Packhams fair crop. Gansels a failure.

**Later.**

Mr. J. F. Moody, manager of the Toomuc Valley Orchards, reports under date, December 15th, that Black Spot is showing up in that district to a far greater extent than was previously estimated. The weather conditions have been peculiarly suited to the development of this fungus disease. Young Apples are dropping freely.

### Red Hill.

Mr. J. E. Holland, Secretary of the Red Hill Co-operative Cool Stores Society Ltd. reported on the 22/11/24 that the rainfall to that date had been 48 inches and had considerably interfered with cultural and spraying operations; also that some evidence of Black Spot had appeared.

The crop generally is anticipated to be heavier than last year when about 60,000 cases of Apples were produced. The principal fruits grown are Apples, Pears, Strawberries, and Cherries, in the following varieties:—

**Apples.**—Jonathan, Pomme de Neige, Five Crown, Yates, Rokewood; **Pears.**—Keiffer's, Napoleon, W.B.C.; **Strawberries.**—Sunbeam, Marguerite; **Cherries.**—Bedford, Florence, St. Margaret.

### Narre Warren.

Mr. J. W. Bailey, Narre Warren, writes under date, December 15th:—

"Since my last report of the prospects of the coming fruit crop, we have had more abnormal conditions in this very abnormal season, and consequently the crop is affected. At present I expect the crop to be from light to medium instead of as reported last month from medium to heavy. Quite a lot of fruit has dropped, and more Black Spot has appeared."

**Merbein (Vic.).**—Merbein, described by Elwood Mead as "The Queen Settlement of its kind in the world," is situated on the Murray River, a few miles from Mildura. The bulk of Merbein land that can be watered may be classed as first class Mallee country. Opened by the Government for selection late in 1909, permissive occupancy forms were issued at the end of that year, and some of the early settlers had their land cleared and planted up with vines and trees by the 1910 season. Rapid strides towards success immediately followed, and extraordinary yields are often experienced, in one instance 60 tons of dried fruit being produced from 19 acres. Elberta Peaches have yielded up to 25 tons, Doradillo Grapes (fresh) 17 tons, and Lemons 14 tons and over per acre.

**Shepparton.**—Recent investigations show that about 3,500 acres are planted with trees in the Shepparton Irrigation Area. The total number of acres in this area supplied with water is 20,000.

### Muckleford.

Crop anticipations for the Muckleford district are stated by Mr. L. Pietsch on the 24/11/24 as follows:—

The fruit crop on the whole is light, although some gardens show promise of a good yield. Rome Beauty, Cleos., Reinette, Five Crown, Jonathan, Delicious, Sturmers, are the chief varieties of Apples, whilst as regards Pears which are expected to yield a medium crop, the principal varieties are W.B.C., Josephine, Winter Nelis, Bergamots, B.B. and B. de Cap. Plums are on the light side, especially Prunes, Greengages, Jefferson, Grand Duke, President and Jap. Plums. The season has been very favourable for the growth on trees, some of the old gardens looking remarkably well. This district has been very free from Black Spot.

## GOULBURN VALLEY ORCHARDS.

### Some are on Unsuitable Land.

### This Year There Should be a Big Fruit Harvest.

One cannot help, states a correspondent, being struck by the enormous area under soft fruits in the Goulburn Valley, and likewise, if one is conversant with the requirements, one cannot help noticing the tremendous area that **should never have been planted.**

Many orchards may be pointed out in Ardmona and one or two in Merrigum, 25-30 years old, and still going strong, but they were planted on soil chosen when land was plentiful and cheap. It was not bought on a price per acre basis, but it was **chosen** because of its suitability for intense culture and its ability to stand the strain.

The uninitiated would scorn the idea that, because a wire fence separated one orchard from another, the land in one was nearly as good, if not quite as good, as the other, but experience teaches that good fruitgrowing soil exists only in patches.

The good patches have long since been snapped up, but the regrettable

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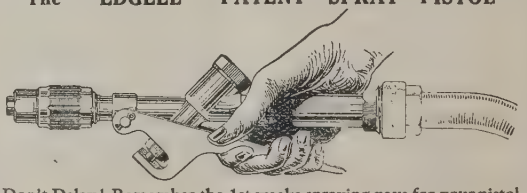
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point is that a good patch and a successful orchard invariably attracted a fringe of hangers-on, as it were, on the poorer country adjoining.

As a consequence many of the "fringes" have broken down under the strain of maintaining trees capable of bearing a payable crop.

Other cases may be cited of the wrong trees being planted in the wrong patches. For instance, W.B.C. Pears have now become the standard for any of the lower corners of the orchard, whereas, in years gone by, they have not been singled out.

There is at present a very big acreage under non-paying varieties of Peaches, sometimes because of the variety and in more cases because of the unsuitability of the soil, which would bring in very profitable crops had W.B.C.'s been planted there in the first place.

Though it is regrettable to have to say it, the fact must be faced that many acres now classed as orchards in the Goulburn Valley will, in a few years, probably be lucerne paddocks.

The lesson to be learnt is good land is cheap at any price, and poor land is dear at any price, if it is intended to be planted with fruit trees.

Another interesting point is the fact that good land will respond to manuring, whereas poor land seems to eat the manure up without returning any increase.

Unfortunately, many a struggling fruitgrower has nearly broken his heart over his efforts to work up inferior land to the same pitch as a good patch which may be only a few hundred yards away.

Depreciation is another factor that enters, or should enter, into every fruitgrower's calculations, and there again the man with the good patch can write his depreciation down very differently from the man who finds that now that his trees are 10 or 12 years old, they have passed their best, and it will be useless to replant ground that cannot sustain fruit trees for that period only.

The small boy on his essay on the Romans stated that they irrigated their land by the sweat of their brow. In this respect the State Rivers and Water Supply Commission assist materially, but at the same time much sweat of the brow is really wasted on soil that cannot appreciate it.

In conclusion, the prospects for a good crop of almost all varieties are excellent with a few minor reservations.

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The advantages of having dehydrators for the "finishing off" process are given by a contributor in this issue.

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"It pays to use Fertilisers" states Mr. F. B. Wilson in his article in this issue relative to the growing of Currants.

## FRUIT EXPORT TO BRITISH MARKETS.

### Advantage of Distribution Through Certain Ports.

### The Claims of Manchester.

During recent years growers and exporters are realising the advantage of consigning a bigger proportion of their shipments direct to such British ports as are most favourably situated for reducing handling and transport charges to a minimum, and thereby effecting economies in the cost of distribution.

Sir J. G. Brookbank, Chief Administrative Official of the Port of London Authority, speaking in October, 1923, as President of the British Institute of Transport, said:—

"Seaports do not best fulfil their destiny if they are situated on the coast. It is not proximity to the sea that is wanted, but accessibility to and from the sea; and, subject to certain limitations, the further inland a seaport is, the greater its hinterland, and, therefore, the greater its capacity for the distribution of incoming traffic and the reception of cargo outwards."

In this connection it is contended that Manchester offers special advantages owing to its unique geographical position, and the enormous population which is within easy rail or road motor transport service of its docks.

Situated about 40 miles from the coast—in the centre of the area which comprises the busy commercial and manufacturing districts of Lancashire, Yorkshire and the Midland counties of England—the construction of the Manchester ship canal and docks has made it possible to serve a population of 10 millions resident within a radius of 50 miles of the city more economically than by any other route.

Very large quantities of fruit, meat, dairy produce, etc., are landed in London or Liverpool, and conveyed by rail or road to Manchester and the surrounding area; the cost of forwarding such produce is approximately £3 per ton from London, and £1 per ton from Liverpool, and although this represents a serious item, the damage and deterioration which frequently occurs owing to multiple handling and unsatisfactory rail or road transport services, involves an even greater loss.

From 2 to 2½ million packages of imported fruit are sold under the hammer each year in the municipal fruit auction rooms at Manchester, in addition to enormous quantities distributed to the retail trade through the wholesale fruit market; the latter is second only in importance, and the magnitude of business transacted to Covent Garden, London.

Most of the imported fruit distributed in the Manchester area is of Canadian, American or Mediterranean origin, and there is enormous scope for the development of a profitable trade in Australian Apples, Pears, and citrus fruit, if arrangements are made for direct shipment to and distribution from this great commercial centre.

Figures quoted in the advertisement columns of this issue prove how great is the business which passes through the Manchester banks—the surest indication of a city's commercial and financial activity.

Australian producers and exporters would be well advised to ascertain what proportion of their produce is ultimately consumed in the densely populated industrial areas situated in the North of England; if large quantities are so distributed, direct shipment to the nearest distributing ports should be insisted upon, and British brokers or agents instructed accordingly.

If, on the other hand, the latter contend the quantities so distributed are relatively small (states Capt. W. J. Wade, representative in Australia of the Port of Manchester), it is proof that one of the most important British markets and economic distributing centres is not being fully exploited, and the reasons for this should be thoroughly enquired into.

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# Tasmania.

### Fruit Advisory Board.

### New Proposed Grading Regulations Condemned.

At the December meeting of the Tasmania State Fruit Advisory Board, Mr. A. Davies presiding, it was decided to vigorously oppose the proposed alterations to the grade designations or standards, with this exception, that the blemish allowance be 100 per cent. of fruits in a case, not exceeding a circle of §ths of an inch in diameter in the aggregate.

It was decided to ask the Federal Government to subsidise the export of Apples shipped on the Commonwealth Line to the extent of 6d. per case, also requesting the National Fruit Federation in London to lodge claims in respect of damaged consignments. The idea of limitation periods of fruit export was approved.

**Fresh Fruit Control.**—Regarding a communication from the Secretary of the Australian Fruit Council (Mr. Mulvaney) in reference to a proposed Export Control Bill for fresh fruit, it was decided to request a copy of the proposed draft bill for perusal.

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### Subscribers' Payments Received.

Owing to the holidays the "Fruit World" had to be posted by the 23rd December. We regret, therefore, not being able to compile the list of payments received, but will include the two months—December and January in our next issue.

# Grading Regulations.

### Alterations are Proposed for the Coming Season.

### Idealistic and Unworkable Scheme.

Growers will be surprised that an attempt is being made to introduce new regulations in regard to packing Apples and Pears for export during the coming season.

Mr. Mulvaney, Secretary of the Australian Fruit Council, who is an official of the Department of Trade and Customs, has written to the State Advisory Boards, enclosing draft regulations which it is proposed should take the place of the existing regulations, which were agreed on last year. In the first place, Standard and Plain grades have been altered to Fancy, Choice and Standard; the only excuse for this alteration being that they are desired so as to coincide with the grade designations applied to export canned fruits.

* * *

According to the new proposals the first grade, Fancy, is practically prohibited for export, because if one Apple is found in any grower's consignment that contains any hail mark, limb rub, spray or Black Spot, or fungus, the whole of the grower's consignment will be condemned, and the grower is liable to prosecution. The "Choice" regulation means that superficial blemishes shall be permitted, provided that the total blemishes on each Apple do not exceed the area of ¼-inch in diameter. The lowest grade, Standard, blemishes are permitted on an Apple not exceeding ¾-inch in diameter.

Now it is well-known that throughout the country, Apples are packed by the growers' families and by casual labour at so much per case. Is it likely that the grower is going to guarantee that one Apple out of a consignment is not free from blemishes in Fancy grade?

In the Choice grade, what packer, without being an expert mathematician, can gauge that the superficial blemishes in the aggregate do not exceed ⅜-inch, or in the lowest grade, do not exceed ¾-inch? ¾-inch diameter is about the size of an ordinary dried pea, and ⅜-inch is half that size, and if growers were to submit to these absurd regulations, it would mean prohibition of export.

One cannot understand how it is that such drastic and unworkable proposals are ever seriously put before the growers, and it will be interesting to learn who is the author of them.

The time has arrived when growers should take things in their own hands the same as is done in America, where all regulations as to standardising and grading are adopted by them, the Government official's part being only to carry out the growers' proposals.

Whilst there is no hope of the growers adopting these regulations, it is very disturbing to them to have these fresh proposals placed before them for consideration just as the commencement of the export season.

* * *

Growers in Tasmania have already emphatically declared against the new proposals. The N.S.W. growers unanimously agreed at their last conference on grades very different from the new proposals. Practical growers in the other exporting States have unhesitatingly condemned the new proposals, and ask the inevitable query as to their authorship.

## EXPORTING AUSTRALIAN ORANGES.

### What is the Best Sized Package?

To the Editor, the "Fruit World" of Australasia,

Sir,—We have read with great interest in your issue of the 1st September last an article raising the question "what is the best sized package" for the export of Australian Oranges?

As important receivers of this fruit from Spain, our shipments totalling during last season some 150 to 200,000 cases, and having had an experience of more than 50 years of this particular business, we take the liberty of making a few suggestions on the subject.

It is immaterial whether the cases be "Californian sizes" or dump cases as used in Apple exports, so long as buyers readily know the exact contents and counts in the cases, because Oranges are sold by numbers and not by weight, and this information is essential to the buyers for basis of operations.

The main point, however, to be considered when making any change of packing is whether any newly adopted one will be shipped in sufficient quantity at regular intervals in order that buyers may become accustomed to it and rely upon it for their trade. The first few shipments of any new size will fetch poor prices, as buyers will not have orders for them.

Previous to the war Valencia (Spanish) Oranges were packed in 3 sizes viz: 420, 714, and 1064 counts, the weights of these being approximately 1¼, 1⅝, and 2 cwt. These packings although popular at that time are not so now, and though still shipped occasionally meet with a very poor demand.

During the war when female labour became necessary, this packing was undesirable on account of its heavy weight, and the package as received to-day was substituted by the Spanish packers at the request of the British Government through the largest importers, including ourselves. The present package referred to is now described as a half case and the counts are: 240, 300, 360, and 504 Oranges to the half case according to size of Oranges. As all Oranges were shipped under these denominations, the demand soon spread for them throughout the country, and they are as well known to-day as the larger were in 1914.

We think the particulars we have given will suffice to show growers that custom in these matters is the keynote of the situation. If Oranges will carry well in dump Apple cases, and growers could agree on that packing, we have no doubt that within a few weeks of their arrival to this market, buyers would have accustomed themselves to the new method, and perhaps would appreciate it more than the present Californian size, which simply has an advantage because it is known and has satisfied up to the present the requirements of buyers on this side.

"Trays" are undesirable unless wired together in couples, as the handling of such small packages is expensive, being almost the same as the larger boxes instead of half.

The essential is that all growers should use the same packs.

We hope you will excuse the length of our communication, but trust that the information given may be of assistance not only to the growers but also to other interested readers.

We are, Dear Sir,

Yours faithfully,

Swann & Co.

London, 31/10/24.

## VICTORIAN IRRIGATION COMMISSION.

We have received the annual report of the State Rivers and Water Supply Commission of Victoria for the year ended 30th June, 1924. During the year, the report states, extensive improvements were carried out. New schemes for improving the conditions of supply in the various districts were entered upon, whilst others in course of operation were completed. Existing storages include the Goulburn, Loddon - Murray, Wimmera - Mallee, Coliban, Werribee and Mornington Peninsula systems, the total capacity of which is 813,510 acre-feet. Additional storage is also being provided by works in course of construction, including the following systems—Goulburn, Wimmera-Mallee, Maffra, and the Murray, and when completed there will be a total capacity of 1,814,510 acre-feet.

**Fruit for London.**—We are asked to announce that the agents in South Australia for Mr. Barnev Springer, of Covent Garden, London, are Messrs. J. Mack & Son, Grenfell-street, East, Adelaide.

# Cold Storage In Australasia

## REFRIGERATION AS APPLIED TO FRUIT.

### Long Distance Thermometers Advocated.

### The Necessity for Continued Scientific Investigation.

### A Paper Read by Mr. Jas. Hepburn (Victoria Dock Cool Stores) before the Recent Fruitgrowers Cool Storage Conference.

OWING to our highly civilised mode of existence, and the tendency of the population to congregate in large cities, the marketing and distribution of our foodstuffs has become a complex business.

Nature, at sharply defined periods, provides us with our foodstuffs (some of which are highly perishable), and as those may not all go into consumption at the producing period, means have to be employed to hold them in a state suitable for human consumption. Refrigeration is to-day the best known medium for the preservation of perishable foodstuffs in their natural state. Considerable advance has been made during recent years in the application of this science, and we are fast approaching the time when definite information, and consistently good results, can be looked for.

With regard to fruit, the best results appear to be obtained when, on severance from the tree, it is transferred as soon as possible to cool store, and its temperature reduced to storage temperature as rapidly as the method employed will allow.

The marketing life of fruit after leaving the cool store appears to be largely affected by the period between the tree and cool store, and the rate of cooling down to storage temperature.

Any system which allows of the extraction of large volumes of hot air, and the introduction and rapid mixing of cool air to take its place, will be the best for the treatment of fruit. Fierce or very rapid currents of air are undesirable, and the change from high to storage temperature should follow as closely as possible the natural law of the displacement of the hot, and therefore lighter air by the incoming cool and heavier air.

The rate of cooling is to a large extent dependent on the method employed, and the more rapid that rate can be made without injury, the longer the life of the fruit after leaving store.

It is not sufficient that the chamber be reduced to storage temperature, but the fruit itself must be so reduced. If on stoppage of the plant any prominent rise in temperature takes place, it may be assumed (provided the insulation is in fair order), that all the heat has not been extracted. It is advisable to run until this has been effected.

In cool stores ashore damage by high concentrations of carbon dioxide have not been so pronounced as on board ship. This is probably due in a large measure to accidental ventilation by the opening of doors in the ordinary course of business. Nevertheless it would appear advisable to have instruments to **measure the atmospheric conditions** in the chambers, both as to carbon dioxide and humidity. I understand that a firm is now considering the manufacture of those instruments for commercial purposes.

Regarding humidity, from practical experience this does not seem to be a fixed quantity but is governed largely by the nature of the season, and also fruit just received may require a different humidity to fruit which has been in store for some time. This is a matter on which more information is desirable.

### What of Pre-cooling?

Coming to the matter of the carriage of our fruit overseas, brings along the much debated and vexed question of pre-cooling. To my mind this question might well be left to solve itself. Treatment of portion of the crop appears necessary at present, owing to period between picking and shipment. However, the first essential seems to be the proper equipment on the ships which carry fruit, and recognition by the Shipping Companies of their responsibility to land the cargoes in sound condition. Once this is obtained the matter of pre-cooling will probably be decided by the demand of the shipping companies for the fruit which gives the best results in spite of all arguments for and against.

One point seems to stand out, the loading of cooled and also uncooled fruit into the same hold is **inviting disaster,** as the cooled portion acts as a cooling agent to the rest, in the same manner as ice would, and consequently the cooled portion would show poor condition when unloaded.

Practically no consideration has been given to the equipment on board ship regarding its suitability for taking care of large fruit cargoes. The distribution of large volumes of cool air is impossible.

The taking of temperatures is at present haphazard, and the system should be replaced by the installation of

**long distance thermometers,**

with the points suitably fixed in the holds to give the average temperature. **Instruments will also have to be installed to indicate the gas content of the holds and the humidity.**

Considerable knowledge has now been made available by

**scientific investigation**

to the extent that a definite chart of instructions could be given to ships carrying fruit, and provided they had the proper equipment, they could then be reasonably expected to adhere to them. Certain boats regularly carry fruit, and the proper equipment of them, in view of the value of the cargoes, is a matter that calls for immediate attention.

Ships loading at our ports have difficult conditions to meet, in that their hatches have to be off several times before their holds are filled. This fact is sometimes advanced as a reason for the deterioration of cargoes, but this is open to question, as it will have one good effect, it will change the air in the hold and if the pack is refrigerated down to the proper temperature and fresh loading is carried out expeditiously, probably no material damage takes place.

**A chart of instructions**

on something like the following appears to be desirable:—

1. Cases to be stowed in such a way that circulation of air is possible.
2. Once the hatches are on, temperature to be reduced to a given degree within a given number of hours: this to be effected notwithstanding that further loading may possibly have to take place.
3. When final loading has been completed and hatches on, temperature to be again reduced within specified time, and to remain constant at a given temperature until unloaded.
4. Humidity of hold to be maintained at a given figure after final loading.
5. Gas content of hold to be maintained at a given ration.

The above is merely a suggestion of what appears desirable, but if some definite programme is adhered to, and the results should not be as desired, it will be a simple matter to locate the fault and correct it. Some such definite programme will bring perfection, and in time all shipments should be landed in good condition, with an appreciable reduction in insurance rates.

Consistently good results are one of the main features in establishing a firm and reliable market.

# Grading and Packing Tomatoes.

## Practical Hints of Value to Growers.

Tomato growers will appreciate the following article written by Mr. Wm. Rowlands, Fruit Marketing Instructor to the Queensland Government. Prior to accepting his present position, Mr. Rowlands was the instructor in fruit packing to the Tasmanian Government. His wide practical experience in the art of packing is thus made available to producers. Mr. Rowlands writes:—

MUCH CAN BE SAID in favour of grading, sizing, and packing of Tomatoes, especially when they are required for shipping to local or distant markets.

It is of great importance that Tomatoes in each case or package be of uniform size, for large and small Tomatoes packed together constitute an undesirable package. It not only makes a very poor appearance on the markets, but is disliked by retail buyers, because of the fact that the Tomatoes contained therein cannot all be sold at the one price. Restaurants, cafes, hotels, and similar institutions require Tomatoes of even size, as the demands of the trade make it desirable for them to serve every customer with equal portions.

The Tomato grower who wishes to establish a reputation for his brand should size and pack carefully.

### Picking.

When Tomatoes are to be forwarded to the markets by rail or steamer, they should be picked when showing a slight yellowish colour; for immediate sale, they should be what is termed half-ripe. Careful handling is essential; each vine should receive equal attention in order to prevent the fruit from becoming over ripe. Tomatoes should be marketed as soon as possible after picking.

### Four Points to Remember.

(1) When picking, do not squeeze the Tomatoes, because by so squeezing the cells are broken down inside and early decay sets in.

(2) Do not drop them into buckets or boxes. Put them in gently.

(3) Cut your finger nails, as otherwise they do a great deal of damage when handling,

(4) And remember: the retailer or housewife expects your Tomatoes to keep for at least a day or two.

* * *

### Sizing.

The sizing of Tomatoes is carried out in much the same way as Apples or Peaches, and if sized with a variation of a quarter of an inch, packing is made easy.

Tomatoes over 3 inches in diameter or under 2 inches, should be sent to a factory. Only when this product is scarce can overgrown or undersized Tomatoes be sold at a profit.

Size into the following sizes:—2 inch, 2¼ inch, 2⅜ inch, 2⅔ inch, and pack as shown in the illustrations.

Do not empty or roll Tomatoes about on the benches. It is much quicker and gentler to size direct from the basket into the marketing cases, throwing out any immature or undesirable specimens.

### Packing.

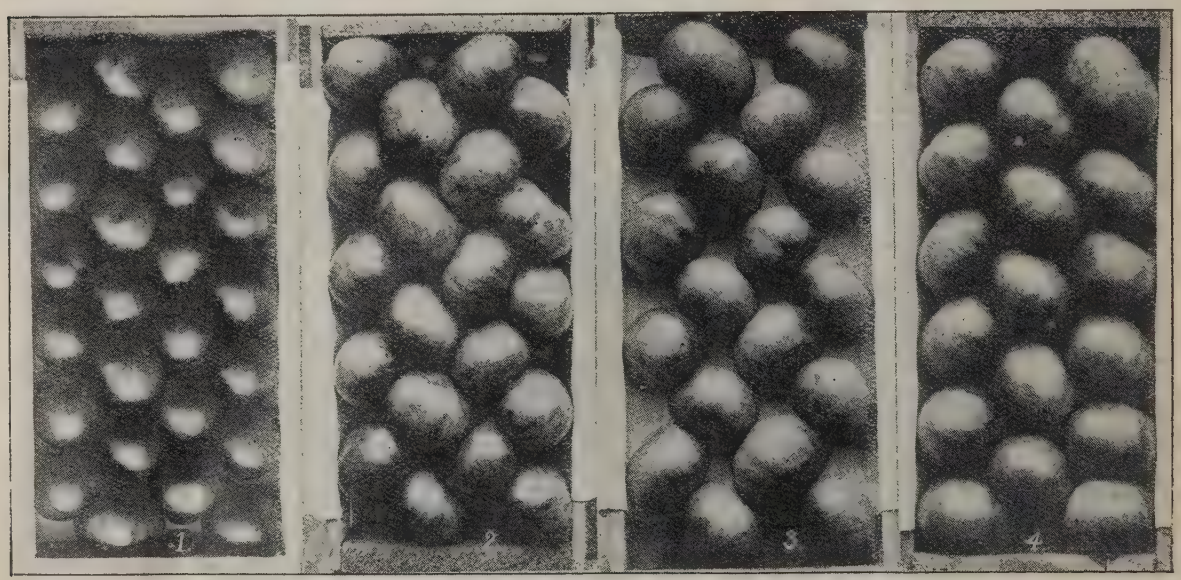
The packing of Tomatoes is as simple as the packing of any other fruit, and the diagonal system suits this product as well as Apples and Pears.

Tomato growers should study the illustrations carefully. They are self-explanatory.

**Illustration No. 1** shows packing of 2-inch Tomatoes in what is known as the long packer case, the measurement of which is 26 x 7⅛ x 6. This is used mainly by the Bowen Tomato growers, North Queensland, to send to Sydney and other markets.

Note the placings of Tomatoes in this size. At the starting end of case they are flat against the end, whilst the remainder of each layer is placed at an angle. The pack is called 2 x 2, four layers.

**No. 2** shows the system of placing 2¼-inch Tomatoes 2 x 2 pack, four layers. Note the placings of the first two Tomatoes in each layer are at an angle.




TOMATOES PACKED IN LONG PACKER ½ CASES 26 x 7⅛ x 6.
**Illustrations show only one section of case.**

(1) 2in. Tomatoes, 2 x 2 pack, 4 layers. Note placing of first two Tomatoes.
(2) 2¼in. Tomatoes, 2 x 2 pack, 4 layers. Note angle of first two fruits placed.
(3) 2⅜in. Tomatoes, 2 x 2 pack, 4 layers. Note angle of first two fruits.
(4) 2⅔in. Tomatoes, 2 x 1 pack, 3 layers. Note first two fruits are flat against end of case.

**No. 3** shows the method of placing 2½-inch Tomatoes. This is practically the same as the 2¼-inch, only more space is left between each specimen.

**No. 4** shows packing of 2¾-inch Tomatoes, 2 x 1 pack, 3 layers to case. Note the placing of the first two specimens against the end of the case.

**No. 5** shows the packing of 2-inch Tomatoes in the well-known half dump case, 18 x 8 2-3 x 7⅛, which is exclusively used in the Stanthorpe area for Tomatoes. The packing in this case is much easier than the long packer case.

However, the principle of placing the Tomatoes is much the same. In this illustration it will be noticed the 3 x 2 pack is used, four layers to the case. The first three Tomatoes are placed flat against the end, whilst the remainder are placed at an angle.

**No. 6** shows the packing of 2¼-inch Tomatoes, 3 x 2 pack, four layers. The first fruits are placed at an angle.

**No. 7** shows the packing of 2½-inch Tomatoes, 2 x 2 pack, three layers. Note the first two specimens are placed flat against the end of the case.

**No. 8** shows packing of 2¾-inch Tomatoes, 2 x 2 pack, three layers. Note the angle at which the first two specimens are placed

In all the packs illustrated packers should note that each consecutive layer should not rest directly on top of the preceding layer, but should be placed in the spaces at the same angle as the former layers, and the finished case should come slightly above the top, but not to bulge the pack.

### Branding.

When branding your cases mark the size on the case, such as 2-inch, 2¼, 2½, 2¾.

Buyers will soon know your product, and always ask for it if you (1) eliminate undesirable and immature specimens; (2) size and pack properly; (3) brand your cases with your name and address, also with size and grade of contents.

Suggested sample branding:—

**J. SMITH**

DONCASTER

Tomatoes 2½

On the other end put your agent's label or number and address.

## SUCCESSFUL TOMATO GROWING.

### Experiments in New South Wales.

With proper cultural methods and the judicious use of fertilisers, the growing of Tomatoes should be found to be one of the most profitable for the professional as well as the amateur grower, is the opinion of the Chilean Nitrate Committee, Sydney.

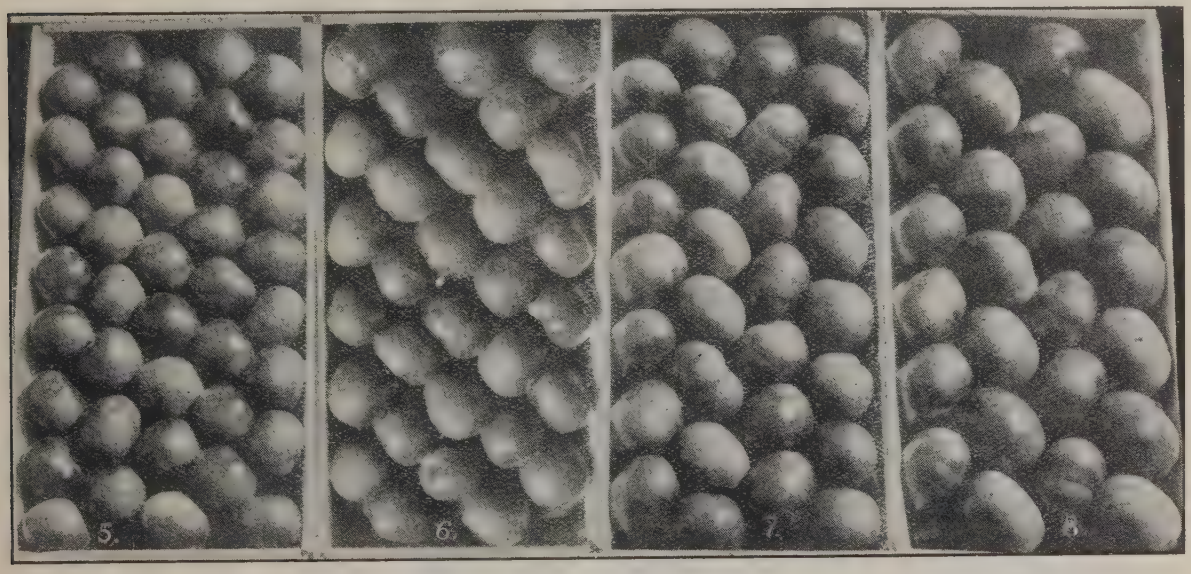
An experiment carried out during the past season by Donald K. McLeod, Esq., Peakhurst, near Hurstville, N.S.W., on this crop demonstrated in a marked way the benefits to be obtained from the use of fertilisers properly applied.

Mr. McLeod selected for the test, three plots of one-tenth acre each, on soil of uniform quality throughout, and applied manures as follows:—

Plot 1.—A mixture of super. and potash (5 of super., 1 of potash), 33½ lb. per plot, worked into the soil at the bottom of the hole at time of planting.

Plot 2.—Received no manure.

Plot 3.—Same super. and potash mixture as Plot 1, applied at the same time and in the same way—also 22½ lb. of nitrate of soda applied as a top-dressing in two applications, the first of 11¼ lb. per plot soon after the plants were well established, the second of 11 lb. a month later, when flowering commenced.




TOMATOES PACKED IN ½ DUMP CASES 18 x 8⅔ x 7⅛.

(5) 2in. Tomatoes, 3 x 2 pack, 4 layers. Note first 3 fruits are flat against end of case.
(6) 2¼in. Tomatoes, 3 x 2 pack, 4 layers. Note angle of first two fruits placed.
(7) 2½in. Tomatoes, 2 x 2 pack, 3 layers. Note first 2 fruits are flat against end of case.
(8) 2¾in. Tomatoes, 2 x 2 pack, 3 layers. Note angle of first two fruits placed.

The first fruit was ready for picking on the nitrate treated plot about the middle of December, the other plots following about the end of the same month. The undermentioned fruit was taken from each plot during the season, and realised the amounts stated:—

| | Boxes. | each containing | Value. |
|---|---|---|---|
| Plot 1 . . . . | 132 | 20lb. | £33 0 0 |
| Plot 2 . . . . | 88 | 20lb. | 22 0 0 |
| Plot 3 . . . . | 400 | 20lb. | 100 0 0 |

It is therefore seen that Plot 1, receiving a phosphate and potash mixture alone, when compared with the check plot, gave an increase of 44 boxes per plot, value £11, while Plot 3 (which received, in addition to the phosphate and potash mixture applied to Plot 1, nitrate of soda at the rate of 22½lb. per plot), gave an increase over the unmanured check plot of 312 boxes per plot, value, £78.

In other words, the benefits derived from the use of the top-dressing of nitrate of soda were 268 boxes per plot, value £67. The cost of the application of the nitrate of soda used would not be more than 10/-, thus a nett profit was obtained of £66/10/- per plot. The percentage increase shown from the plots, when compared with the check plot, would be as follows:—Plot 1, 50 per cent.; Plot 2, 354 per cent.

Mr. McLeod states that there were 800 plants to each plot, and that the plants in Plot 3 averaged 10lb. per plant. Individual plants yielded as many as 42 Tomatoes, many of which weighed ½lb. each.

## New Zealand.

### Satisfactory Crops Anticipated.

Writing under date, Nov. 22, Mr. H. E. Napier, Manager of the New Zealand Fruitgrowers' Federation Ltd., states:—

It is too early at the present time time to make a comparison with last season's crop, as in the latter part of November a certain amount of falling is usually experienced in some varieties, and until this period has passed, it is very difficult to make anything like a fair comparison.

General reports from the districts seem to indicate that this season's crop of Apples will be heavier than last year. This is to be expected as in most districts the Apple crop, during last year, was fairly light.

As regards export. It is also too early to make any statement regarding the total quantity which we will be likely to ship, but as the general indication from the districts is for a heavier crop, export should increase accordingly.

## South Australia.

### Coonawarra.

Mr. Joseph Darwent, of Connawarra, on the 24th November, reported as follows:—

Crop anticipations for the coming season are good, Apples, Pears, Apricots, Peaches, Prunes and wine Grapes being the principal fruits grown. The yield will no doubt be heavier than last season, as conditions have been very favorable. The spring frosts have been light, and there is plenty of moisture in the ground. Apples have set so thickly that thinning is necessary.

### Nuriootpa.

Mr. A. B. Robin, on November 19th reported as follows:—

The principal kinds and varieties of fruit grown in this district are Apricots (Moorpark, almost exclusively), Apples (Cleos, Dunn's, Romes, and Jonathan), Pears (Williams', Glou Morceau), Peaches (Elberta, Salway, Eureka, Goodman's, Italian Cling etc.), Plums (Golden Drop, Jefferson), Prunes (D'Agen, Robe de Sargeant, Splendour).

Crop anticipations are as follows:—Apricots, heavy; Apples, medium; Pears, medium and patchy; Peaches, light; Plums and Prunes, medium to fair.

The fruit crop on the whole will be lighter than that of last year, climatic conditions during the spring having been exceptionally favorable for the development of insect and fungoid diseases, and frequent showers have rendered spraying operations more difficult than usual.

Peach trees are suffering from a plague of green aphis which has spread rapidly, and it is difficult to keep in check by spraying as it causes the leaves to curl, thus affording shelter from contact with the spray. In some orchards the Apricot crop is more or less damaged by hail and shot hole.

### Wirrabarra.

The following is a district report from Mr. P. J. Curnow:—

Apples, Peaches, Plums, Pears and Apricots are mainly cultivated, and with the exception of Peaches (which will probably be heavy), a medium crop of fruit is anticipated during the coming season. The crop generally will be lighter than last season in all fruits except Peaches.

### Angaston.

The principal fruits grown in this district, writes Messrs. Trescowthick Bros., under date 20/11/24, are Apples (Cleos.), Apricots (Moorpark), Pears (W.B.C., and Glou Morceau), Peaches (Elberta and Salway), Prunes (D'Agen and French), and Currants (Zante).

The Apple crop is anticipated to be very light as compared with last season, fusicladium being very prevalent. W.B.C. Pears set very heavily but have since shed 50 per cent with the result that the yield will be only medium. Last year's crop of this variety was very heavy.

Peach trees generaliy are badly affected with green aphis, and only a light crop is expected. Prunes—Light to medium. Zante Currants promise a medium crop, but it is too early yet to forecast, as so much depends on the weather later on. Apricots which yielded a very light crop last season, will probably be medium to heavy.

### Clare.

A district report from Clare, dated 6th December, indicates that crop anticipations are good. The principal fruits grown are Grapes (wine and Currant varieties), Plums, Prunes, Pears, Apples and Peaches. Currants are showing well, the cincturing being nearly completed; Jonathan Apples show a heavy crop, whilst other varieties are light to medium; Peaches, Pears and Prunes will probably yield a medium crop, and Plums are showing a heavy setting.

It is too early as yet to state definitely what the crops will be, but with favorable weather and good markets at right prices, the season should prove a very satisfactory one.

### Cudlee Creek.

Writing under date 5th December, Mr. F. B. James, Secretary of the Cudlee Creek Orchardists' Association, reports that the principal fruits grown in the district are Apples, Pears and Plums. Light crops of Apples and Pears are anticipated, whilst Plums indicate a light to medium yield. The crop generally will probably be lighter than last year. The season has been one of the worst yet experienced as far as fusicladium is concerned.

## AMSTERDAM AND ROTTERDAM.

### Six Fruit Brokers Amalgamate.

The Algemeene Vruchten Import Maatschappy is an amalgamation of the six oldest and most important fruit brokers of Amsterdam and Rotterdam, viz.:—The firms L. Grellinger, I. Tas Ezn., Gebr, Bosnak, Michel Bosnak at Amsterdam, B. M. Spiers and Sons, Felix Cohen at Rotterdam.

The head office is at Amsterdam, with branch offices at Rotterdam and Hamburg, whilst also the firm of Grelinger & Co. G.m.b.H. at Cologne/Rhine is affiliated to their company.

They import (states Mr. H. G. Colombie, of 115 Hotham-street, East Melbourne, Vic.), huge quantities of Oranges, Lemons, Apples, Coconuts, Onions, Potatoes, Bananas, etc., by direct steamers from the countries of origin, which goods are sold in their public auction rooms at Amsterdam, Rotterdam and Hamburg. They also have an office at Valencia (Spain). This season they imported more than 350,000 cases of Spanish Oranges.

# New South Wales

### Satisfactory Crop Prospects.

In a recent report from Mr. W. J. Allen, Fruit Expert, Department of Agriculture, Sydney, the following is stated as regards the fruit prospects for the coming season in New South Wales:—

**Gosford, Wyong, Castle Hill and adjacent districts** have every promise of a prolific crop of citrus fruits. Washington Navel and Valencia Late Oranges have set very well. Common Oranges are also showing well for a good crop. The foregoing districts are noted for the production of citrus fruits.

**Kurrajong and Hawkesbury districts.**—The above statement applies equally well to these two districts, and, in addition, they have a good setting of stone fruit, particularly Peaches and Apricots.

**Murrumbidgee Irrigation Areas.**—A good crop of Valencia Late and Washington Navel Oranges is indicated. Robe de Sergeant and Prune d'Agen have set well. The Peach crop is below the average. The varieties grown most extensively are Pullar's Cling, Sim's Cling, Tuscan Cling, Phillip's Cling, and Selma. The Apricot crop is heavy, particularly Trevatt, which is the chief variety grown. The vines are looking well, and the crops of Ohanez and Purple Cornichon promise to be good. The Sultana and Currant crops are also good. Apples and Pears are not grown extensively, but the former are heavily laden, and the latter well laden. The varieties of Apples chiefly grown are Granny Smith, Jonathan and King David; and Pears, Williams' and Packham's Triumph.

**Batlow.**—In this district there is every prospect of a good Apple crop; the Granny Smith, Jonathan, London Pippin are particularly good. The Pear, Prune and Cherry crops are light to medium. The varieties principally grown are:—Pears: Winter Cole, Packham, Josephine, Williams', Glou Morceau. Prunes: Prune d'Agen and Robe de Sergeant. Cherries: Bigarreau, Napoleon and St. Margaret.

**Uralla and District.**—The Cherry crop is light. This also applies to the Apples. The chief varieties of Apples grown are Granny Smith, Jonathan, Winesap, Londons, Delicious and Tasma. Pears (Packham's and Williams') give promise of a good crop.

**Goulburn and District.** — Apple crops are heavy, especially Granny Smith, Jonathan and Londons. Pears blossomed profusely, but give promise of only a fair crop; Williams' and Packham's are the most promising. The Cherry crop is good—the most prolific being Early Lyons, Florence, St. Margaret and Napoleon. Apricots are heavy and Plums good.

**Penrose - Tallong Districts.** — A heavy crop of Apples is anticipated; the chief varieties are as follows:—Granny Smith, Jonathan, London, Statesman, Delicious, Tasma, Romes and Cleos. The Pear crop is light to medium.

**Young District.**—The crops of Cherries, especially Early Lyons, St. Margaret, Florence, Bigarreau Napoleon, Black Republican, are good. Apples are bearing well; the chief varieties are—Granny Smith, Jonathan, Delicious, Romes, Londons, King David and Tasma. The Pear crop is medium. The crops of Peaches and Plums are light.

**Albury and Lavington.**—Crops of Prunes, especially Robe de Sergeant and Prune d'Agen are good. Pears are medium. Apples (Jonathan, Granny Smith, Delicious, Rome Beauty, Dunn's and London Pippin) give promise of a good crop.

**Orange and District.** — There is every promise of a good crop of Apples, especially of the following varieties:—Granny Smith, Jonathan, and Delicious, which are the main ones grown in the district. Pears are medium to good. The main varieties grown in the district are Beurre Bosc, Williams', Packham's, Winter Cole, Josephine and W. Nelis. Plums are light to medium. Varieties grown are President, Grand Duke, Angelina Burdett, Giant. There is a good crop of Cherries.

**Bathurst and District.**—There is every indication of a good crop of Apples. The chief varieties grown are Granny Smith, Jonathan, Londons, Romes. The crop of Pears is light to medium; the varieties grown are Williams', Packham's, W. Cole and Beurre Bosc. The Plum crop is light to medium.

**Wagga and District.**—The crop of Prunes is particularly good; the chief varieties are Prune d'Agen and Robe de Sergeant. Vines are also looking well, and promise for a good crop. Apples and Pears are not grown extensively, but the former promise for a good crop, and the latter for a fair crop.

In comparison with last year's crop, the Apple crop will be much heavier; Pears, Plums and Peaches about the same, while Apricots and Cherries are more prolific.

The Grape yield will be good, but it is, perhaps, a little lighter than last season's, which was exceptionally heavy.

In some districts unfavourable atmospheric conditions during the blossoming period prejudicially affected the setting of the Pear crop, and the continued showery conditions which have recently been experienced in the Cherry districts have adversely affected the picking and marketing, and some heavy losses have been sustained.

### Pennant Hills.

A district report by Mr. J. Heane, dated 1st December, is as follows:—

The principal fruits grown are citrus (Emperor Mandarins, Late Valencia, Washington Navel, Joppa, Parramatta, White Siletta and Seville Oranges, also Sweet Rind and Lisbon Lemons); Apples (Granny Smith, Jonathan, Carrington's, McIntosh and Arken's Seedling); Plums (Shiro, Santa Rosa, Wickson's Seedling, Wickson and Satsuma).

Present indications point to a heavy crop of citrus and Plums, whilst Apples are fair to heavy. The crops show prospects of being much heavier than last year, when 600 acres of citrus were cultivated, 280 acres of Apples and 180 acres of Plums.

### Leeton Cannery.

Canning operations are now in full swing, and Mr. Brady, Cannery Manager of the Leeton factory, fully anticipates the Cling Peaches to realise the quantities tendered. Two of the latest syrupers and drainers have been installed at the factory, thus eliminating a great deal of handling of cans. A man simply sweeps a tray full of cans on to a disc. This feeds the tins into a machine which inverts the cans and allows all the waste water to drain off before passing into the syruper.

Another plant addition is the installing of a hot water bath for the Peaches; this gives the fruit an extra cleaning after it leaves the cold water bath and washer. Apart from removing any caustic which may be on the fruit, this operation makes the hard Cling Peaches more pliable, obviating the bruising of the Peach flesh of the top piece when the syruper clamp comes down on it. The store rooms are now empty, all of last season's pack having been disposed of. Provision has been made for a large reserve of tins, and already 1,500,000 cans are waiting to be filled.

The following is the quantity of fruit tendered to the Leeton cannery for the 1924-25 season:—

**Apricots.**—Leeton, 783 tons; Griffith, 705 tons; Yenda, 164 tons.

**Freestone Peaches.** — Leeton, 968 tons; Griffith, 362; Yenda, 10 tons.

**Cling Peaches.**—Leeton, 1,666 tons; Griffith, 1,701 tons; Yenda, 398 tons.

Miscellaneous.—Total, 400 tons.

Owing to the difficulty in getting suitable female labour, an effort will be made to employ some men pitters, It is hoped, however, states the "Murrumbidgee Irrigator," that women and girls residing on the area will show their interest in the settlement by offering their services wherever possible. Local labour is advocated, thus ensuring trained labour and workers whose interests are wrapped up in the success of the settlement, and who feel a certain amount of pride in the quality of the pack turned out by their cannery .

# The Sugar Burden

**Present Conditions Impose a Burden of £800,000 on the Fruit Industry.**

There can be no gainsaying the fact that the preferential treatment meted out to the sugar industry has adversely affected the fruit industry. The position is acute. Despite increased cost of production, fruitgrowers are now receiving less than before the war, and the sugar producers are receiving about double. The duty was recently increased from £6 to £9/6/8 per ton, and overshadowing this there is the nine-year embargo against the importation of sugar from abroad. On the one hand the Governments have increased the production of fruit by financing settlers, yet on the other hand they have restricted the normal markets by mothering the sugar industry. The latter is, for all practical purposes, a socialised industry, the various acts, regulations, Government financing, &c., having made it a part of the fabric of Queensland. If Queensland desires this expensive luxury she should pay for it. Alternatively, if the Federal Government desires to take the industry under its sheltering wing, the money necessary should be taken from the general revenue instead of placing a crushing burden on the important primary industry of fruitgrowing. It has been frequently stated that the sugar industry is the bulwark of the White Australia policy, **yet the truth is that thousands of foreigners are pouring into Queensland, and Australians are being ousted. These foreigners are Italians, Greeks, Assyrians, and Russians** (particularly the first mentioned). These men speak in their own language, and apparently it will be a long time before they absorb the Australian spirit. They work in families, in groups, and in communities. Many of them, by working long hours, and on Sundays and holidays, earn from £15 to £25 per week, wages undreamt of in their native land. Hence the present influx.

The sugar industry, with its organisation (and particularly the organisation of the Colonial Sugar Refining Co.), and its political "pull" can secure favors and preferential treatment at the expense of the fruit industry.

A returned soldier fruitgrower at the recent deputation to the Prime Minister, uttered a great truth when he said that it was "degrading" for fruit producers to have to be continually coming to the Government for assistance, yet it was necessary to do so as long as the Government meted out its undue preference to the sugar industry

**Heavy Sugar Yields.**

Mr. A. W. Palfreyman, Managing Director of the Australasian Jam Co. Pty. Ltd., who has just toured through the beet-sugar growing areas, states he is convinced that before long the price of sugar will fall to well below the existing world's parity of £22 a ton. Before the war a large portion of the world's production came from the beet areas. During and since the war a great revival in cane-growing completely reversed the position of the industry owing to the way in which cultivation was encouraged by favourable markets. In Europe once again the sight is presented of a large cultivation of sugar. F. O. Licht, the well-known beet sugar authority, in September held that, whereas the increase in the output for Europe for the 1923-24 season at 5,065,334 tons was early 500,000 tons more than in 1922-23, he estimated

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Correspondence Invited.

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for the 1924-25 crop at 6,700,000 tons, an increase of approximately 1,600,000 tons for the year. Cable advice from Berlin states that the German yield alone for last season was approximately 1,620,535 tons, or some 540,000 tons more than in the previous year.

While everything will depend upon the nature of the season, Mr. Palfreyman says that he was so impressed by the greater area under cultivation that he holds that there must be such a yield as will force prices well towards a pre-war level, when the London price of refined granulated sugar was £15 a ton. Should this opinion be verified, how will consumers here fare? Are they to be debarred from the use of sugar at anything like the world's parity, and, if so, to what extent? As Australian growers are producing in excess of the requirements of the home market, the settlement of this issue is of the greatest importance.

At the world's parity to-day, it is believed that Australian growers are not netting more than £18 a ton f.o.b. when exchange and other charges are taken into account.

**Governmental Activities.**

The Federal Government in this connection should give consideration to the position of the fruitgrower and of the jam and canning industries. Old conditions have disappeared. Before State intervention in one way or another, the fruitgrower and the associated industries went along successfully. The duty on sugar after the departure of the kanaka was £6 a ton, and the grower did well. In the same way the fruitgrowing industry expanded under natural conditions. It sold its fruit in the open market, and with the conditions then ruling the canning and jam-making industries developed steadily.

Continuing, Mr. Palfreyman states, "the Government now offers an option to the fruitgrower which, under Australian conditions, he knows to be inadequate. Apparently the State wants to control the allied canning and jam industries in manufacture, marketing, and almost everything else. As a result it is

**cheaper to import jams**

from abroad than to make them under Australian conditions. In point of fact, shameful as has to be the admission, very large orders have gone abroad for jams. The reason is simple. Australia cannot compete with a country where sugar is obtainable for manufacture at the world's parity of £22, against £35/13/- a ton in Australia, labour a quarter of what it is here, and with the British preference of 25 per cent. **The question of the higher cost of labour is not the factor that tells. It is the difference in the price of sugar.**

"The strange position is that we are exporting sugar to sell at the price stated, and then it is being brought back in the form of jam. Everything surely is 'topsy-turvy.' It is said that our canners and jam-makers are supplied with Queensland sugar at parity. That is not so, because the only way to obtain parity is to let the manufacturer buy in the world's markets when he sees fit. Restraint in that direction imposes a check on one of the most important business operations in which he can engage. I may add that if we could get sugar now at the equivalent of the world's prices, the importations to which I refer would not go on.

**Decline of the Jam Trade.**

"The position of the jam-making industry to-day is that the output is only 65 per cent. of what it was in 1913, due to the high price of sugar. Between 1903 and 1913," continued Mr. Palfreyman, "the industry doubled itself, and it should have doubled again in the following decade had it been left alone. **The very same thing occurred in the United Kingdom, and there, as they have reduced the price**

**of sugar £30 a ton, the jam industry has revived..** Now jam in the United Kingdom goes back to the position it should occupy in the dietary of the people.

"Assuming, as has been stated, and about correctly, that some 30,000 tons of sugar are used in Australian jam-making annually, then another 15,000 tons is used by the jam-makers' most severe competitors—the housewives of the country. The total quantity of sugar used in jam-making is ton for ton with the fruit, so here is 45,000 tons. The difference between the pre-war price of sugar of £18 a ton and £35/13/- is £17/13/- a ton, **or a total of £794,250 on that consumption of sugar. That is what the fruit industry of the country gives to the sugar-grower.** The most extraordinary thing to be recollected also is that although the duty on sugar was increased from £6 a ton to £9/6/8 a ton to protect the sugar industry, it has never once been allowed to operate. No bonus or assistance is wanted by the jam-makers. All that is needed is that the duty shall be fixed by Parliament and the industry let alone."

## Answers to Correspondents

**Peachgrowing.**—A reader at Shepparton East, Vic., asks the following question:—

Up to what age will a Peach tree continue to bear profitable crops under average conditions? There seems to be some confliction of opinion in this matter amongst orchardists.

**Answer.**—A local correspondent points out the difficulty in giving a general answer to this question as the quality of the land is a big factor. Shepparton is stated to be not of the same quality as at Ardmona, Merrigum and Kyabram. Other factors bearing on the life and bearing qualities of the tree include the ability of the person in charge and his skill in pruning, cultivating, irrigating and keeping free from diseases such as aphis (green and black), curl leaf, scale and rust.

**Answer** (by E. L. Young, Ardmona) —Under fair average conditions a Peach tree should yield profitable crops up to 20 years of age, I have both Cling and Freestone Peaches planted in 1896, 1900, and 1903 still bearing good crops; but other blocks planted several years later are now almost ready to grub, mainly due to the damage done to the trees by root borers.

**Trees for Avenue of Honor.**—A resident of Fryerstown writes as follows:—"The residents of Fryerstown wish to plant an avenue of trees in memory of the men of the district who fell in the war. Please advise what to plant. Fryerstown is in the Castlemaine (Vic.) mining district of schist formation. This particular spot was turned over by the early diggers and up to 20 feet in depth. No water will be available other than the rainfall, which is about 23 inches. Pinus insignis, the Oriental Plane, and the Tasmanian Blue Gum do well here, but as there are a good many about we want a change. Acacias do not live long enough."

**Answer.**—We suggest the following —Grevillea robusta, Camphor laurel, Rhus succedanea, Prunus vesuvius, Sycamore, Liquidambar.


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National Provincial Bank Ltd., Long Acre, London. Barclay's Bank, Henrietta Street, Covent Garden.


**Cherry Stones.** — A manufacturer states:—

"We are large buyers of Cherries for crystallising, and wish to obtain those with the smallest proportion of stones. Could you obtain for us information as to the following points? (1) Would the stones fill out much while the Cherry is coloring? We believe that the stone would grow faster than the flesh while this is going on. (2) Alternatively, does the per centage of stone depend on the size of the fruit, or on the variety of fruit? We have had contradictory tests on this matter."

**Answer** (by Mr. A. E. Thiele, Orchardist, Doncaster).—

(1) The stone of the Cherry grows with the fruit until the fruit is about half ripe. (2) The size of the stone depends on the variety of the Cherry, not in the size. An undersized fruit has a proportionately larger stone than a fully developed and large fruit. Amongst the older and well-known kinds of Cherries, the smallest stones are to be found in Bedford's Prolific, Doncaster Seedling, Purple Guigne, May Duke, Napoleon Biggareau and Florence.

## Keep Fit—Eat Williams' Pears

Growers of Williams' Pears in Victoria have subscribed sufficient funds to conduct an active advertising campaign to increase the consumption of Williams' Pears.

An attractive poster has been printed, and is being displayed on Railway stations and in fruiterers' shops in Victoria, whilst posters are also being supplied for display in Sydney, to which place large consignments of Victorian Williams' Pears are sent.

Pamphlets describing the merits of this luscious and healthful fruit are also being sent broadcast. There will also be an educational campaign through the public press.

Valuable tested recipes for the use of Williams' Pears have been courteously supplied by the Melbourne College of Domestic Economy. From the information supplied we quote the following:—

Is it generally known that a little stick cinnamon or ground cinnamon with Lemon juice or a thin strip of Lemon rind (whichever is most suitable to the dish), is a great improvement to the flavor in cooking Pears?

**Compote of Pears,**—Peel and cut the Pears in halves or quarters. Take out the core but leave a neat piece of the stalk on some pieces. Boil up in a saucepan 1pt. of water, 4oz. sugar, a ½ inch piece of stick cinnamon and a strip of Lemon rind. Put in the Pears, allowing syrup to cover, draw to side of fire, put the lid on and simmer gently till tender. Take out the pieces of Lemon rind and cinnamon and serve cold.

A result even better may be obtained by putting fruit and syrup in a casserole in a very slow oven allowing a longer time to cook.

**Pear Ginger.**—To every pound of Pears—

¾lb. sugar
2oz. preserved ginger
½oz. whole ginger.

The Pears should be under ripe. Peel and core them and cut in rather large pieces. Put in a basin, sprinkling each layer with sugar. Stand over-night. Drain off the syrup and bring to the boil. Put in the fruit and the whole ginger, which should be bruised and tied in muslin.

Cook till the fruit is transparent and the syrup thick, adding the preserved ginger cut in thin pieces, about 10 minutes before removing from the fire. Take out the muslin bag. Bottle and cover while hot.



# THE "Sunraysed" Courier



## A.D.F.A. NEWS.

### Raisin Bread.

The trade in this popular line (in Melbourne and suburbs) is now steady, the sales having settled down to regular customers. Complete statistics have been compiled, and furnish some very interesting figures.

Totals are as follows:—

| | |
|---|---|
| Number of loaves consumed monthly .. .. .. .. .. .. .. | 95,000 |
| Bakers and pastrycooks making it .. .. .. .. .. .. | 136 |
| Shops supplying .. .. .. .. | 647 |
| Carts delivering in time for breakfast .. .. .. .. .. | 546 |

As 22,000 1lb. loaves contains 2 tons of seeded Raisins, it is estimated that over two tons are being consumed per medium of Raisin bread every week in Melbourne alone; all this trade, it should be remembered, is entirely new business.

Bakers are unanimous that this line has now been definitely established, and although the public's taste varies with the seasons, or rather with the weather, the variations are but slightly felt with Raisin bread.

One baker describes it as "the best general purpose line I make." As a winter food it has a high calorific energy producing value. In summer it keeps its moisture remarkably well, and, therefore, is fine for picnics. Makes up into delicious "bread milk," or the tastiest "bread and butter pudding imaginable!" Everywhere the same.

**In Broken Hill** excellent business has been put through by our South Australian specialty salesman, Mr. I. F. Glenister, who reports combined weekly output is now over 1,000 loaves, and steadily increasing.

**From Sydney,** Representative Leo T. Pearce reports splendid progress, and a graph received from him shows that the present sales are at the 23,000 loaves per week mark, and still "going up."

Sydneyites had their first taste of Raisin bread in May and June last, and that figure reached by October speaks volumes both for the popularity of this line and the thorough spade work put in by our Sydney staff when introducing it.

### Horticultural Trade Exhibition.

For three days in the first week in November, the Melbourne Town Hall was a fairy-land of flowers and horticultural exhibits.

Our stand, which exhibited every variety of dried fruit grown in Australia, was visited by hundreds of enquirers and purchasers.

Three afternoon lectures were delivered by Mr. W. A. Edmunds on "Dried Fruits and Good Health," to interested audiences, and it is observed that the public display keen attention to any spoken word that has an educative value, particularly on fruit and food values, and diet generally.

### News from the United Kingdom.

Writing from London, Mr. W. P. Caro, our manager for the United Kingdom, states that the publicity accorded the "Sun-Raysed" A.D.F.A. brand recently has had one definite and gratifying result. Each day, for two or three months past, the letter bag for the Association headquarters in "Australia House" has averaged 50 to 60 enquiries. They come from all over England, and all of them express the same appreciation of our fruit, and the writer's intention to purchase Empire-grown Dried Fruits in the future.

Here is a letter from a pleased recipient, one among many, sent to the Melbourne office by the Australian senders of Souvenir Boxes. It speaks for itself:—

"This week I received a parcel from you containing dried fruits, and I thank you very much indeed for sending them to me. I am saving the Currants, Raisins and Sultanas for my Christmas pudding. The other fruit is very good indeed; they looked so pretty when I opened the box, that I felt they ought not to be disturbed, but I followed out the directions, and we had a delicious dish of fruit for dinner to-night. I should think it would become a splendid industry."

### Royalty "Eats More Fruit."

After many negotiations the London office reports that the Association has just received the acceptance of special Souvenir Boxes from the following Royal personages:—

Her Majesty, the Queen.

Her Majesty, Queen Alexandra.

Her Royal Highness, The Duchess of York.

Her Royal Highness, Princess Mary.

This is very gratifying, and members of the Association will without doubt be pleased to know that their gifts of dried fruits were worthy of, and received acceptance by, the various members of the Royal Family.

This lead given by the first family in the Empire will undoubtedly have a powerful effect and very greatly influence the housewives in the Old Country to support Australian-grown dried fruits.

Our task is very clear. We have shown thousands of British housewives in every town and village in England samples of our fruit. The fruit that follows must be up to sample. Excuses are no good. We have not sent the fruit home, as it could have been sent "owing to the bad drying season."

Members are now learning by bitter experience that it is often better to destroy inferior fruit than send it away for the eyes of the world to look at and judge the whole of the pack by a part.

Growers and packers might well read this extract from our London manager's letter, and blush for shame:—

"There was a public auction to-day of Spanish Valencias, and some of our fruit was also put up, but I regret to state that the auctioneer could not even secure a bid, although I heard him say—'Come along, this fruit has got to be sold, won't someone bid me 20/-?' (i.e., 20/- per cwt.) But no bid was forthcoming even at this figure. Of course, you must realise that our Lexias this year are not what they ought to be, nearly every sample being sugary and mushy, and, as I told our agents at the last meeting, I thought it advisable to close this fruit up and sell it at best possible price as soon as possible."

and again:—

"**Valencias (The Spanish Lexia).**—There has been a steady demand for this fruit for the last few weeks, and there is no doubt the quality this season is excellent. It seems to be the general impression amongst dealers that the quality of this season's Valencias is the finest that has ever been shipped to England, and notwithstanding the fact that they have a crop of 11,000 to 12,000 tons this season (just double what they had last

year) they are securing wonderful prices for their high-grade stuff.

"This will serve as an illustration that this market is always prepared to pay a tip-top price for a tip-top article. It is almost impossible to make a comparison between Valencias and our Lexias. Personally, I much prefer the flavour of our fruit, but I have gone to considerable trouble asking people in no way connected with the trade their opinion (on flavour only, mark you) of our fruit, and the Valencia, and funnily enough in nearly every instance they will reply—"Oh, you can't possibly compare the two; Australian Raisins are certainly very nice and sweet, but they have not got the wonderful tart crisp flavour of the Valencia."

**Canadian Enquiries Brisk.—"Every Day Counts."** The Ford Motor Company has rendered invaluable assistance in bringing our products before the Canadian wholesale and retail traders and public, and generally assisting the sale of our products throughout Canada. In a comprehensive report of their activities on our behalf, they give a list of 28 towns throughout the Dominion, in which our fruit exhibit will be shown at their branches. These exhibitions will take place over a period of about four months, and we have already been deluged with enquiries about our fruit and information as to methods of distribution, agents, terms, etc. There is no doubt about the "punch" in this marvellous Ford organisation, and members of this Association can feel they are fortunate in having this organisation behind the campaign to bring our fruits under the notice of the trade and public of Canada.

### Peach Growers, Attention!

Mr. A. V. Lyon, Horticultural Scientist, of the Mildura Vineyard Protection Board, recently received from the Secretary of the A.D.F.A., samples of two Peaches, which, to all appearances, seemed the one variety. The samples were marked "A" and "B." One Peach, however, contained a skin which was easily removed after soaking over night, whilst the other, despite treatment with bi-carbonate of soda, and soaking up to 48 hours, resulted in such laceration of the flesh as to render it unsightly and therefore unsuitable for cafe or hotel use. The query was raised by the Secretary of the A.D.F.A. as to whether these were two distinct varieties of Peach, or whether the difficulty in skinning the second Peach was due to the fruit being picked whilst still slightly immature (a stage of ripeness not conducive to quick and clean skinning.) This particular fruit came from the Curlwaa district.

Mr. A. V. Lyon's reply is as follows:—"It is undoubted that the Peaches marked 'B' were picked while immature. The character of the 'bloom' and the greater amount of laceration caused by removal of the stone, are clear indications of unripe fruit. The only practical method for avoidance of this is the exercise of judgment in picking, and the discarding of unripe fruit while pitting. Acidity tests are in general inapplicable since fruit on the individual trees does not ripen simultaneously."

All packers were circularised with the above information, with the result that Mr. P. Malloch, manager of the Irymple Packing Pty. Ltd. replied as follows:—"In reply to your circular letter re dried Peaches, we would advise that the trouble is really due, in our opinion, to the demands made by the fruit inspectors last year on account of the outbreak of the fruit fly. This necessitated growers picking their fruit earlier than they normally would have done, and it is to be hoped there will be no recurrence of the trouble."

# The Dried Fruit Industry of N.S.W.

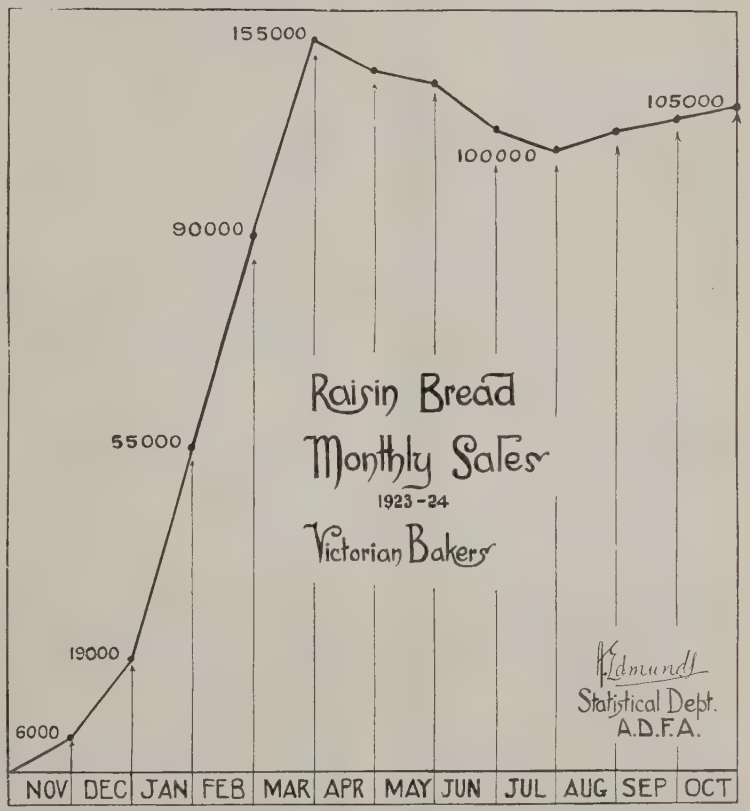
**Pomona and Curlwaa are Thriving Settlements.**

**The Pomona District Described.**

Much has appeared in the press recently of the activities of the two N.S.W. settlements, Curlwaa and Pomona, but little is known of their achievements outside the immediate vicinity, and Sydney, for the most part, is in entire ignorance of the district or its activities.

I was deputed to pay a visit to these two settlements, which claim to produce the best citrus in Australia, and to represent the dried fruit industry of N.S.W.

Leaving Mildura by the Wentworth mail coach, which crosses the Murray at Abbotsford punt, which will soon




The above graph shows clearly the growing popularity of healthful raisin bread. On November 1923 the Victorian Railways Department commenced an active campaign to popularise Raisins, and Raisin Bread. Mr. Clapp's now famous slogan "Every Day in Every Way—Raisins" has become a household expression.

Following this advertising effort, this line jumped in a few months to the peak of popularity. It was inevitable that as soon as the novelty had worn off the trade would settle down to regular customers with a well developed trade.

In August, 1924 the A.D.F.A. launched a newspaper campaign and personal canvass of bakers, with the result shown—a cessation of the downward trend in sales and a steady recovery is now taking place.

Next winter with the new season's fruit another boom in this line may be confidently expected.

be the terminus of the Victorian railway, the extension from Merbein having been provided for, the bridge across the river into N.S.W. being only a question of time, we passed within sight of a few of the Curlwaa orchards, and very beautiful they looked on this spring morning.

Arrived at Wentworth, I was motored to the Pomona Irrigation Estate referred to, on the recent visit of the N.S.W. Governor, Admiral de Chair, as the largest privately owned irrigation estate in N.S.W., if not in Australia.

Pomona lies seven miles north of Wentworth. It was only opened up as a settlement about five years ago, but already it has a population of about 100 persons, and it seems destined to become in the future the key to the development of those large tracts of irrigable land lying back from the river Darling.

Pomona has a frontage of three miles to the river, its course being marked by stately trees. Here is exemplified the benefits to accrue from irrigation; land, that previously could not carry more than 10 sheep to 100 acres, if that, being now a vision for the tired eyes of the city dweller, of smiling vineyards and picturesque citrus orchards.

Nature has been considerate to Pomona, where, within three miles of the settlement are to be found endless deposits of gypsum, the blockers standby, the plentiful application of which gives such a bounteous return.

Here, in the evening, with the wonderful setting sun, comparable only to those sunsets of the East, seen across the great sandy deserts, is nature revealed in all its wonderful colouring, and a great sense of peace enwraps the settlement.

Pomona has its history. Years ago, one of the pioneers of the district, Mr. J. G. Dunn, owned and farmed portions of the land. He had visions of the results to be obtained when the hidden treasures of the soil were revealed. At the old homestead, which still remains, many fruit trees were planted and flourished, and he named the estate after the place his mother came from, Pomona, meaning "The Goddess of Fruit." She has not belied her name.

Were this district in any other English-speaking country in the world, how her splendour and her hidden wealth would be boomed. How the reaches and backwaters of her rivers would resound to the laughter and song of the holiday maker. Unfortunately, Pomona is far from her capital, and her glories are unknown except to the few. This will all be altered some day. The Hay-Port Augusta railway that is looked forward to, may bring about the alteration, and the day will come when the miles of land at present neglected and without population, will become a great revenue producing territory, carrying vast numbers of prosperous and contented settlers.

All credit, then, to the forerunners of this development, for their vision and for the great fighting qualities they displayed in winning against great odds the reward of their enterprise and industry. Their reward to-day is in the knowledge that through their efforts and those of the neighbouring settlement of Curlwaa, N.S.W. is worthily represented in the dried fruit industry, and the citrus produced in these two centres stands alone in the Melbourne market, demonstrating and proving the value of silt land.

What of the population of this young settlement of Pomona? There are Mallee farmers, men from Broken Hill mines finding new health and strength in their occupation; there are men from the old country. Men who arrived with horticultural experience—some who arrived without, but who found help and guidance readily extended to them.

Despite the setback experienced in the dried fruit industry the last two years, Pomona settlers are full of confidence that prosperous times await them. They can grow the fruit, they can get quality and tonnage.

What they now require to ensure success is an efficient and uniform system of processing and

**an efficient organisation**

to handle the marketing of the fruit, to create and maintain the necessary markets in the world for their product, wisely supported by a Government, and Imperial policy elastic enough to meet the needs of the industry and so ensure that those men the Commonwealth has fathered on to the land, and who prove their ability, will, when standing before the World's Tribunal, not be worsted by the cheap labour of its erstwhile enemies and neutrals.

What of the people of England, our Mother Country? Are the mothers, the wives, and the sisters of the men who fought and died with us, who bow the head to Kipling's Requiem, and the heart-stirring words, "Lest we Forget," willing or likely to forget the bonds that link us, the blood we have shed in their cause, and in ours? Are they desirous of supporting the Greeks, the Spaniards, and the Turks, when they know they can get the same class of fruit grown by the sons of the Empire? A thousand times no. The right goods, the right propaganda, and the great market of England is open and waiting.

This is the spirit and belief that animates the settlement of Pomona, and will win for its settlers the success they await. This is the spirit that prompts her settlers to put additional acreage under vines at a time when the croakers urge an abandonment of fruit blocks. It has prompted them to urge for, and obtain, a public school under a qualified male teacher, to erect a public hall, to make tennis courts, concrete cricket pitch, etc.

In visiting these settlements it is prominently brought home to one how urgently the dried fruit industry requires the services of the best brains available in Australia to bring about cohesion in the industry. The best expert knowledge to ensure the correct processing of the fruit grown

**the necessary bureaux**

where all records obtained can be adequately classed and made available.

There are vast unexplored acres which, with irrigation, will yield bounteous harvests, but of what avail unless the same methods of watching and controlling the cost of production in relation to turnover, the same expert knowledge how to bring the product up the world's standard of excellence is available, the same skill and efficiency as shown in other industries which, with these attributes, climb from success to success, and without them must sink to failure?

The settlers of Pomona realise all this. They look for this efficiency out of the action that is being taken by the Federal and State Governments. They, and settlers I have met elsewhere, engaged in the dried fruit industry, are deserving of all support and encouragement.

Little do the dwellers in the cities and large towns realise the

**self sacrificing qualities**

of the fruitgrowers, so many of whom start their block life in a bag house, working from sunrise to sunset, buoyed up with the growth of their vines, looking for the day when, in response to their efforts, they can give to their families and themselves some recompense for their years of toil and hardship.

Are they not worth working for? Are they not deserving of support? They are not trained business men. They have no knowledge how to get the value for their labour in the world's markets. This is where they want help and guidance, and with it, Australia adds to her permanent wealth another great primary product.

There is a friendly rivalry between the Pomona and Curlwaa settlements, both of which are noted for their citrus. At the recent Royal Show at Melbourne all the first prizes for individual exhibits of Oranges were awarded to a Pomona grower, while the prize for the best citrus collection went to Curlwaa. So it is claimed honours were divided between the two settlements.

There is a much debated anomaly. Though Pomona is only about 10 miles from Curlwaa, she is able to place her early Washington Navels

on the Melbourne market, two to three weeks in advance of her neighbour, and, in fact, in advance of any settlements on the river Murray. Is this due to special irrigating qualities possessed by the Darling water, or is there some other reason?

It was my intention to write of the neighbouring settlement of Curlwaa, but this must be the subject of a following article.

Washington Navels, Late Valencias and Mandarins are the Oranges grown at Pomona, the soil of which responds so well to citrus cultivation.

This is not a poor man's business. The grower must wait two or three years longer than the vine grower before he knows the first joys of sending his product to the market.

To-day, the orchardist, with his citrus block in full bearing, is comfortably placed. The time must come, however, when citrus produced in this country will have to be exported in bulk. Are the growers sufficiently alive to this? Are they using this period of freedom from anxiety to prepare for the day when their product, in the same way as dried fruit, must stand the test of foreign competition? Then will quality, packing and production in relation to cost, count.

The citrus grower does not yet, for the most part, realise the value of branding, papering, etc. Every grower on a settlement should have a vested interest in a well established trade mark built up on the solid foundation of value, or "Service before profit."

My last glimpse of Pomona was memorable. There, in the glory of the setting sun, casting her long shadows riverwards, were some of her indomitable settlers spreading their last load of gypsum on their blocks, soft, fine clouds being caught in the sun's rays as this Nature's gift fell to the ground, there to remain until the next rainfall, or the next irrigation, then to blend with and give to the soil its valuable properties.

E. L. WALTER, F.R.G.S.

## THE RAISIN INDUSTRY.

### Some National Aspects.

The growth of the Raisin industry in Australia during the past thirty-five years has been remarkable. The steadying, stabilising power of a body of united organised primary producers is illustrated by the excellent position held by this industry until recently.

The number of growers engaged in the actual growing and drying of Sultanas, Lexias, Currants, Peaches, Apricots, Pears, Prunes and Nectarines is between 5,000 and 6,000, while approximately 15,000 dependents are gaining a livelihood or being supported by this industry. The growing is carried on in five States of the Commonwealth, principally under irrigation. In the Murray Valley and on the Murrumbidgee, the long hot summer days enable the growers to sun-dry their product.

In the Southern districts of South Australia and Victoria, on the Swan River (W.A.), and in Tasmania, these fruits are grown with the natural rainfall, and dehydration or artificial drying is mostly resorted to.

The magnitude of the industry, and its importance from a national point of view can readily be visualised from the fact that there are over forty growing districts spread over the five States, and seventy packing houses this year packed a **record crop of 36,000 tons of all varieties, valued roughly at £1,500,000.**

Beside the thousands of growers, there come every season to these districts hundreds of pruners and pickers, to assist in the preparation for and harvesting of the crops. The packers are mostly co-operative sheds owned by the growers themselves, and for three or four months are engaged in preparing the finished article for the merchants and retailers to the number of many thousands, who handle the distribution of these products throughout Australia.

The industry is rapidly reaching the stage when by the quantity and value of its product it can claim recognition as a **National Industry.** One of the **most vital features** of this industry is the number of returned soldiers engaged in it. There are 2,000 of these men, young, energetic and earnest, and with possibly 3,000 dependents they represent a most valuable asset to primary production. The success of the Government's repatriation scheme in relation to these returned men is almost solely dependent upon the success of this industry as a whole.

Australia's growth as a nation depends upon the prosperity of her primary industries, just as much, if not more, than upon her secondary industries. That the Governments are alive to this vital fact is evidenced in the enormous amount of money they are spending in preparing for the expansion of this particular industry that is bound to take place in the next decade. Vast irrigation works, locks and weirs that will have cost, when completed, over ten million pounds sterling, are being constructed on the Murray, the Murrumbidgee and elsewhere. Recently Acts of Parliament have been put through that will help in the disposal of the big tonnages that will have to be exported overseas, and an amount of nearly **£200,000** was set aside for advances to growers to enable them to produce their next season's crops.

These facts make the duty of all loyal and good Australians crystal clear. Support to the home-grown product is not only an act of pure patriotism, but will re-act to the profit of pocket and health.

## CURRANTS AND QUALITY ESSENTIAL FOR MARKETING, AND NECESSARY CULTIVATION REQUIRED.

### Summer Pruning: Manuring.

In the course of a paper before the recent Congress of the South Australian Bureau of Agriculture, Mr. F. B. Wilson, of McLaren Flat, S.A., sets out some interesting facts. The paper, which was published in the "South Australian Journal of Agriculture," is as follows:—

CURRANTS are a product in which we are all interested. They form part of an industry of which we are all proud, and rightly so. It is, therefore, imperative that we should produce the very best article, which is so essential if we are to compete successfully against the older countries of the world, where labour and living conditions are so much lower than they are in Australia.

It is very necessary to produce a sample of rich, dark colour, carrying all the bloom that is possible to retain in the drying process, and to be even in size. Now, it is impossible to get a sample showing an attractive bloom, off trays or out of a drying shed, that has been filled with inferior or immature fruit, such as is usually gathered from badly, and at times, uncultivated vineyards. I do not say that it is always the cultivation that is accountable for poor and faulty fruit. There are times, and I am sorry to say they frequently occur, when bad pruning performed by unskilled and inexperienced men, is to blame. This point of management on the part of the owner cannot be too carefully observed. There is nothing that gives more trouble than a rough and dirty pruner. **Summer pruning proves very beneficial both to the vines in question and the quality of the fruit at vintage time.**

Then it is necessary to

**manure the vines**

in order to get the best results, and these results are only obtained by using the fertilisers that are best suited for the production of the article that we are after, viz., the best. Different soils require different fertilizers.

My experience in heavy land leads me to believe that in this class of soil we require something to keep the heavy clay soil loose, and I recommend a dressing of **gypsum** of 1 ton to the acre. I have found this is very beneficial. It makes the land easy to work, and retains the moisture during the summer, which is so essential for the developing and maturing of the crop.

This in itself is not sufficient; we must then look for the best fertiliser to apply for fruit producing purposes. In this we have a wide range from which to select.

My experience has been that 4 cwt.

of bonedust to the acre every four years, and 4 cwt. vine manure annually, with a dressing of gypsum every third year, have given really good results, and I have been able to produce samples that are very satisfactory from this method of fertilising.

However, to determine which is the best fertiliser to use is a question for the vigneron to decide. Different classes of land require different treatment. I am sure that the class of land referred to requires something to cause it to relax, and it may possibly be a great benefit to dress with 1 ton per acre of gypsum in alternate years as well as the 4 cwt. vine manure annually.

The question of cost will naturally arise, and I will admit that this appears at first glance to be high. Gypsum at £3 per ton would cost 30/- per acre annually, and vine manure at £8 per ton 32/- per acre, plus carriage; 4 cwt. bone dust every four years works out at 8/- per acre annually, making a total of £3/10/- per acre, plus carriage. This works out, approximately, at 10/- per ton, and adds to the above cost p.a. accordingly. This, I admit, appears high at first sight, but when you compare it with the returns of a vineyard that has not been properly treated, you will agree with me that it pays to fertilise.

The difference is, on the one hand, you have a return of about half a ton, and perhaps less, to the acre of poor quality fruit, altogether unfit for export, a disgrace to the district in which it is grown, and bearing no recommendation for the grower. On the other hand, you have a return of 1 ton, and often 1½ tons, to the acre of beautiful, fully matured fruit that is carrying that

**rich glossy bloom**

that is required to compete in the world's markets, and make the industry a success, both to the grower and the State.

Viewing the facts in this light, you will easily see that it is a very profitable undertaking to manure judiciously. The cost per acre is set out at £3/10/- for manure, plus carriage 10/-.

The half-ton of fruit per acre from lb., approximately, off the trays land not manured, valued at 4d. per through the buck sieve equals £18/13/4, as against 1 ton off trays at 4d., approximately, which equals £37/6/8, showing a difference of £18/13/4 per acre, less cost of manure £4, which represents a profit of £14/13/4 per acre. These figures are based on conservative lines, and do not allow for the possibility of inferior fruit from the unmanured vines.

The time has arrived when it is absolutely imperative to produce an article that will stand the tests that are being made (and rightly so) by the Government of the day. In the past inferior products have been exported, which soon undermines an industry, and to-day it is necessary to export an article that will redeem and uphold Australia's good name.

The best results are received when dressings have been administered after the first ploughing. The heavy winter rains having then passed, the danger of losing the manure by washing is less. Weather conditions are certainly a very great factor in successful cultivation, and if favourable, make the work very much easier.

After the first ploughing, the cultivator should be put through to keep the soil loose, and prevent it from setting hard. In a wet season I have found it necessary to cultivate twice, and on some parts three times, between the first and second ploughing to keep the land in a fit condition.

After the second ploughing it is very necessary to work the soil to a fine surface, to conserve all the moisture possible. After every summer rain the cultivator should be at work; in fact, there is always a job that will pay the grower, viz., keep the cultivator continuously working.

QUALITY
DEHYDRATORS
J. H. MORTON, A.M.I.M.E.
Consulting Industrial Engineer
Bank of N.S.W., SYDNEY, and
369 POST OFFICE PLACE, MELBOURNE
Inventor-Designer
WORLD RENOWNED
"Morton Efficiency" Dehydrator
(By Royal Letters Patent)
(Adopted after elaborate Official Tests by H.M. Imperial Govt.)
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On a 40-acre holding this implement should never be idle during November and December. The grower that follows his cultivation on these lines I am sure will be amply repaid, and at vintage will have, under normal conditions, a sample of fruit of which he will be justly proud. On the other hand, the grower that does not attend to his cultivation must be prepared to accept at least a one crown drop on his fruit, which means at least ¼d. per lb. This in itself represents a very substantial loss.

On many occasions after the first ploughing, the soil is allowed to lie and harden without even the harrows to crumble the surface. This, in my opinion, is very disastrous to the cultivation of a vineyard.

It is most

**essential to retain moisture,**

and if the land is left in its rough state after the first ploughing and the season happens to come in dry, the so much-coveted moisture soon disappears and leaves the soil rough and hard. To overcome this trouble the cultivator comes into use after the harrows have crumbled the surface.

If this practice is followed you will find when the second ploughing is started the soil will turn up in a soft and loamy condition, which is very necessary if the moisture is to be retained. If the cultivator is kept working, as suggested previously in my paper, the cultivation will be complete, and the vines will then yield to the grower a sample of fruit that he will be justly proud of, and also a credit to the district in which it is grown.

We then have the "bogey" of distribution and marketing problems to contend with. In a country like Australia, with the glorious conditions, it does not seem fair to me that the people that help to produce the article should have to pay more than the price paid by people on the other side of the world.

If our organisations can and do sell overseas at a price within the limits of the consumer's capacity to pay, then why should not the people of Australia be able to purchase their own grown products at the same price?

This, I contend, has been one of the principal reasons that our consumption of fruit per head of the population of Australia has been so much lower than that of the Americans. Further, it should be the aim of the grower to supply the best quality fruit for home markets, as well as for export. It is a mistake to dump inferior fruit on to the local market for home consumption. The fruit should be of excellent quality, and at the world's parity price, so that Australians could be encouraged to eat more fruit and help the fruit industry.

## WORLD PRUNE CROP.

### 100,000,000 Pounds Short.

Attention has been directed by Mr. Stirling Taylor, Director of the Commercial and Industrial Bureau of the Board of Trade, to the following report published in the New York Commercial of October 24th, 1924:—

San Jose, Calif., Oct. 23.—A shortage of approximately 100,000,000 pounds is imminent in the world Prune market, according to a statement by officials of the California Prune and Apricot Growers' Association. Revised estimates of Prune production in this State, Oregon, France, Bosnia, and Servia form the basis for the statement.

Less than 80,000,000 pounds of the California 1924 crop remain unsold, while Oregon has left less than 20,000,000 pounds, according to the association, and the combined yield in Europe this year has fallen to 23,000 tons, or considerably less than half of last year. This total of about 120,000,000 pounds represents the available supply with which to satisfy the current year's needs, amounting to 220,000,000 pounds, as shown by last year's consumption.

# The Dehydration of Fruit.

**(A Paper read by Mr. H. R Little, Renmark, South Australia, before the thirty-fifth Annual Congress of the South Australian Bureau of Agriculture.)**

DEHYDRATION appears to many as a theoretical term, surrounded with mystery, but in reality it is an old art clothed in a new name. The secret is the art of removing water from a product, reducing it to such a condition that bacteria will not thrive therein. Therefore, dehydration is simply "dry sterilisation."

We rarely hear of dehydrated Raisins, or dehydration applied to other fruits or vegetables. In fact, one wonders if Raisins can be successfully dehydrated, and if there is a real place for dehydrators, or driers, in the dried fruit industry. Although there is a considerable lack of interest in dehydration, due to the unknown advantages of the process, there seems to be a very distinct place for the drier; a specialised and valuable field, which undoubtedly should be recognised by fruitgrowers generally. To recognise this field, one has only to pass through one of those unwelcome wet seasons—such as was experienced in 1924 (and they all too frequently occur), seasons when rain after rain prevents the proper drying of fruits, which eventually fosters the growth of fungi, and very quickly renders the partially cured fruit unfit for human consumption.

This, then, is the big field for dehydrators in the dried fruit industry. And it would not be presumptuous to say that **every grower should provide for sufficient dehydrator capacity to take care of the whole of his crop in such emergencies.** If this could be accomplished, it is safe to predict that Australian fruits would find a more ready market.

### Can Dehydration Reduce Cost of Production?

To reduce cost of production should, in the future, be the aim of every drier of fruits, and to shorten the time of curing on the drying ground will tend more than anything else to this end. Growers in the wet 1924 season erected emergency driers. Many of these were very crude; charcoal or wood fires being lighted in "drums," and placed with the fruit inside, without any regard to circulation of air, or other equally important factors.

Some people appear to believe that it is smoke rather than heat that accomplishes the desired results. This proves a costly venture in most cases. The result is tons of beautiful fruit smoked and baked till it resembles pebble stones. Many of these crude structures caught fire, causing the growers concerned much loss in fruit, plant and buildings.

The fruit so treated—or mistreated—must be sold to help defray the expenses of growing and harvesting. Consequently the prestige of Australian fruit is lowered, and probably the market will suffer.

In fairness to the industry, every grower should provide a drier to ensure that damaged fruit will not be marketed. It would mean the saving of hundreds of pounds, which would more than pay the interest on such an investment. In other words, it is a rain damage insurance policy, and what is needed now, more than anything, is more insurance policies, to take the worry out of the business.

### Rack Drying Not a Perfect Method.

Racks have over and over again proved quite unsuitable for drying fruit in seasons when the weather has been damp and cool, with a notable absence of hot winds; and also at the latter end of drying seasons, when the days shorten and the nights become dewy.

During these conditions the grower finds he has

**inadequate rack space,**

and commences to remove the half dried fruit from the racks, which results in damaged fruit that soon becomes candied after packing; and should the weather continue damp and unsettled such fruit, in bulk, presents a serious difficulty.

Supposing then, the growers had the fruit on wire-netting trays, instead of racks, and possessed **a suitable dehydrator for finishing off**; then a dehydrator would become a fruitgrowers' treasure box. Think of the saving of time! It means the obviating of sheet drying, a process which incurs considerable worry and expense, and is the main cause of sanded fruit.

If this method were adopted, the grower would have a continuous flow of dried fruit towards the packing shed, and the harvest, once started, would continue to the finish without a break.

### Is Dehydration Cheaper than Sun Drying?

This question cannot, at the present time, be answered by a simple yes or no. In California the cost exceeds that of sun drying; but, in spite of this, dehydration is making steady progress, and growers find they are actually in pocket, if the reduced area of the drying ground is taken into consideration, and also the absence of delays owing to bad weather.

There appears to be some difficulty in classing the product for marketing, owing to its different appearance from the sun-dried article. It is my opinion that we should continue to produce the article that has been so highly spoken of the world over by merchants and others in the dried fruit trade, and we can continue to do this by combining sundrying with dehydration. **I can confidently say that dehydration, in conjunction with the sun, will reduce costs of drying by 50 per cent.**

By using a plant such as was devised and erected on my drying ground this year, fruit can be finished off more cheaply than spreading on sheets. It takes forty 6ft. sheets to carry a ton of dry fruit. These, on an average, would need to be spread, shaken in, and covered up three times, at a labour cost of 33/-.

With this dehydrator that I tried out the ton could be finished off for less than half of this. Including fuel and labour, the cost would not exceed 15/-. Such a dehydrator would pay handsomely, for it would do the work more quickly and more cheaply than sun drying. This drier proved a complete success in finishing off my fruit, which consisted of wet Lexias, much of it having scarcely dried at all since leaving the dip. We soon had all the racks cleared, and were receiving the congratulations of the packing shed authorities for delivering such a completely dried article so late in the season.

It was at the end of May, and on June 19th I received my last cartnote. The A.D.F.A. inspector informed me that the fruit was very evenly dried, and he was most anxious to see the plant producing such a sample. This satisfactory perfection was not quickly or easily reached. It has taken three years of study and discussion, and much experimenting. The difficulty was to make the idea fit the practical needs of the river settlements.

For instance, it would be useless to perfect a drying machine if the cost of operating it were too high. There must be no re-spreading of the fruit on to special trays; double handling will not pay. This and other difficulties equally important have been completely overcome.

When success was finally attained the inventors saw the necessity for at once taking steps to protect it by patent, to prevent the exploitation of growers. A complete patent for the whole system has now been issued.

### Description of New Dehydrator.

The drying is done by an induced draught of heated air. There is no fan or machinery. This cuts down the cost of running to a minimum. The whole thing is based on a stove or furnace, or perhaps a more appropriate name would be a hot air engine, as its peculiar construction causes a flow of air into the drying chamber, under pressure, at any desired temperature.

This air machine is placed outside the drying chamber, with its top slightly below the ground level, the air rising upwards and branching into two flues. These convey it at ground level, one on each side, to the extreme end of the drying chamber. This is the door end, and as the air rises, it is sucked back through the trays of fruit to the store end. This end of the chamber is conical in shape, and in the centre of the cone is the exhaust, or outlet pipe, which extends upwards to a height of about 20 feet, directly over the stove.

The chimney from the fire leads into this exhaust pipe. Thus it will be seen that the strong upward draught from the furnace induces the flow of air from the chamber. This, with the air pressure push from the stove, creates a hot wind through the room. Hence there is no necessity for a fan.

The difficulty of obtaining an even flow back through the chamber is overcome by the conical outlet, where baffle plates are used; thus an equal suction from all quarters, top, bottom, and sides, is assured.

**Operating Costs.**

Operating costs are extremely low. No more than 3 cwt. of wood is consumed in finishing off a ton of half dried fruit, the only other cost being the time spent replenishing the fire occasionally.

The dehydrator will be made in units of 1-ton dry capacity, or 3½ tons of green fruit, so that one or more units, up to any number, can be incorporated in the one plant. It is capable, therefore, of dealing with the large tonnage of the largest growers, just as easily as that of the smallest.

In conclusion, I wish to stress the point that racks will not work so well as wire trays, in conjunction with dehydration. You cannot put racks in a dehydrator. When fine, dry weather suddenly changes to wet and damp conditions, there is only one thing to do if the fruit is on racks; simply wait until it becomes fine again.

On the other hand, with fruit on wire trays, it could be quickly finished off, and the trays made available for re-filling. Therefore, to economically dehydrate, use wire trays. This advice will not be welcome to growers who possess a lot of racks, but I am convinced it will pay them well to gradually convert them to trays and get a dehydrator.

Mr. H. S. Taylor (Renmark) said that Lexias when properly dried and finished off in the dehydrator, as described, would keep very much better than the article dried in the ordinary way, and there was also the assurance that the article would reach the shed quite free from grubs and insects.

Mr. G. Brown (Williamstown) said that dehydration was yet in its infancy. There were many different kinds of dehydrators, and they had yet to see the perfect one; nevertheless, he thought they had come to stay. Growers did not care to handle their fruit too much and with a dehydrator it could be handled more quickly. Wire trays were not always advisable; unless a sheet of hessian was placed over the wire it would mark and spoil the fruit, and the sulphur would also destroy the trays in a very short while.

Mr. H. R. Little, in reply to a question, said that the time taken to dry fruit with the machine varied with the condition of the fruit. It would take about 12 hours to "finish off," or about 24 hours to dry wet fruit. He had found that the most suitable temperature was between 130 deg. and 135 deg. F.

# Irrigating the Vineyard.

**Deep Narrow Furrows are Better Than Wide Shallow Ones.**

**Avoid Flooding.**

**Deep Cultivation Must Follow Irrigating.**

IRRIGATION is a subject which is now very much in the thoughts of fruitgrowers, thus the article herewith will be appreciated by "Fruit World" readers. The author is Mr. W. E. Muspratt, Irrigation Instructor and Inspector under the South Australian Government. Mr. Muspratt read the paper at a meeting of the Moorook, River Murray (South Australia) fruitgrowers, it being subsequently published in the South Australian "Journal of Agriculture." The article is as follows:—

Water makes up a large part by weight of all living and growing parts of plant life, and is the medium in which the transformation of crude materials into assimilable food products takes place, and by means of which these products are transported to various points of growth. It is only when the important role played by water in crop production is realised that we are in a position to see how necessary to maximum yields is the correct amount of water at the right time, and to insure the crops sufficient irrigation and an adequate drainage.

It is not alone for the crop that is being grown that water is needed in the soil. If the water content of any soil be reduced below a certain amount, bacteria are unable to do good work.

Again, if the soil be water-logged, there can be little soil ventilation, and bacteria are forced into a thin zone close to the surface of the ground, but if the surface is allowed to become dry, then the process will cease, and the crop above ground will be checked.

Flooding, except on very sandy soil, or where deep drainage has been provided, and it is desired to drive the salt down into the drains, is not justifiable. It causes land to dry out sooner than that irrigated by furrows, because the water seals the ground and destroys the bacteria and other life in the soils, and so prevents Nature's system of plant-food building.

In water-logged soils, plants are forced to occupy the surface soil, because the roots cannot live in the water-logged region. Then a dry period comes with all the life processes going on in the soil confined to surface, the demand for water from the roots cause them soon to dry out the portion they occupy, and so a violent check is brought both upon the plant itself and upon all food-forming processes in the soil, because under these conditions capillarity cannot keep pace with the loss of water from above.

Other plant foods which contain phosphoric acid, potash, lime, magnesia, iron, and sulphur, must be converted from the inert solid form in the soil into solution in water, before they can be of any service to plant growth.

On sandy loams, from 4 in. to 4½ in. of water for irrigation is about an average to aim at, and in order to distribute this evenly, it is necessary to have water in the entire length of furrow as nearly as possible the same length of time. To do this one must not have too long a run for the water —five chains is approximately right— or the channel headland end will receive too much before the bottom end receives any water.

**This is one of the main causes of seepage troubles,** because the water percolates to the impervious strata, and shows out at a point where the soil texture changes. At this point the soil is of a stiffer nature, and does not allow water to continue draining along the impervious strata. It gradually fills up the strata immediately above the impervious one, and so forms a water table. This rise gradually narrows down the feeding area for the plant roots.

This rising water table drives the injurious salts before it, and capillary action finishes the work by bringing the salt to, say, the top 3 in. of soil, where it does most damage.

A fairly deep, narrow furrow gives a better irrigation than a wide, shallow one.

Crushed limestone, gypsum, or lime, applied to very sandy soils, helps to prevent erosion. Crooked furrows are one of the common causes of flattening and washing of furrows. The water cuts away the outside edge of the curves, and so gradually slits and widens the furrows. When this occurs, it is hard to push the water through or past this place, in spite of opening up the outlet pipes to give more water.

It is readily seen that such spots are getting

**far too much water,**

and a continuance of this trouble will mean seepage at no distant date, perhaps not exactly at this spot, but at a lower level where a change of soil texture occurs.

**Green manuring** in such a case may prove useful, because the soil is usually of a sandy, drifty nature, and lacking in humus. Shorter runs for the water, say, two and a half to three chains, may also help to remedy the trouble.

Do not irrigate the same way every time, or use all the water you can, because it has to be paid for.

**In sandy loams**

it is advisable to alter the position of the watering furrows, especially if there is any salt in evidence, to give the water a chance to drive it down. One furrow each side of a row is usual, any salt showing will be found right under the trellis or out in the centre of a row.

Again, there is that class of land that retains moisture fairly well, and whilst one does not like to miss an

irrigation, it is practically impossible to give it only half a watering with the usual number of furrows. Where this is the case, I find that unless the soil is very dry when water is due (and this can only be found by taking a shovel and digging down in several places) that one furrow is enough, say, on the left side of the row of vines one watering, and on the right the next.

Soil textures alter so that one cannot lay down a hard and fast rule, but each settler should quickly learn what water is necessary on the different parts of his block.

**Good, deep cultivation should follow irrigating, and that just as soon as the implements can be worked on the land without damage.** This first cultivation is principally to fill in the furrows which, if left open, would cause the soil to crack.

A second cultivation should be given as soon as possible, and it will be found that the horses can pull the same cultivator let down another notch or so, and thereby provide a good deep tilth so necessary for the retention of moisture.

It is quite common, when passing blocks whilst water is in the main channels, to see leaking gates. This will lead to seepage troubles, because lime concrete channels are not watertight, even if all the outlet pipes are sealed. Headlands should also be cultivated to prevent evaporation, the usual excuse for not doing so is that they are too hard to make up again.

In the discussion which followed, Mr. Muspratt thought that a fall of 4½ in. per chain should be the average to aim for when laying out a block, although on very stiff clay soils, this could be reduced. A discussion then took place on spraying vines.

### INTERESTING MANURIAL EXPERIMENT.

An interesting manuring experiment has just been conducted by a well-known Merrigum fruitgrower in connection with Yorkshire Hero Peas.

A small block with all rows treated identically, same bag of seed, planted same day, and in same manner and subsequent treatment, the same for the whole block.

Block 1, Super. Block 2, Bone. Block 3, Potash. Block 4, Nothing.

The method of planting was to make a small trench along each bank, and to spread the manure and plant the Peas on top of the manure along each row.

The first to show and come away was Block 4. Second Block 1, which rapidly overhauled Block 4, and is now carrying easily twice the crop of Block 4.

Blocks 2 and 3 were failures, and for all commercial results, valueless. Incidentally, Blocks 2 and 3 were failures from a germination point of view, as only half of the seeds grew at all.

## Passion Fruit Cul ure in N.S.W.

Prospects of the Tweed River district by (H. W. Eastwood, Orchardist, Wollongbar (N.S.W.), Experiment Farm).

Although the cultivation of Passion-fruit is at present a negligible quantity on the Tweed River, the district has certain advantages over those farther south. Not only are the vines more vigorous and the crops about half as heavy again, but there is the important factor of earliness, writes Mr. H. W. Eastwood in the N.S.W. Journal of Agriculture.

Whereas in the counties of Cumberland and Northumberland two crops a year are produced, in the Tweed River district the Passion vine produces only one main crop, known as "the summer crop." The vine begins to blossom about the middle of August, marketing commencing at the end of October, (about four to six weeks ahead of the main southern crop), and continuing throughout November and December and occasionally into January.

The "off" crops (which include all fruitings outside the four months mentioned) are ripening practically throughout the year, but they are borne in such small quantities (on the existing scale of production) that it hardly pays to handle them.

The earliness of the main crop is the salvation of Passion-fruit growing in this district, and it is not considered that it would pay to interfere with this crop by pruning &c. with the object of obtaining off crops later in the season, as such off crops would probably come in with the main crops from the southern districts. The main crop is therefore allowed to grow naturally, though it may be advisable to remove the wood that bears blossoms which do not mature by the end of December.

If the vines are planted about September they will bear a light to medium crop in fifteen month's time, and will continue to bear light off crops during that season, but it is usually the following summer—that is, two years from planting—before a profitable crop is obtained. Three seasons of profitable crops may be reckoned on as a rule, making the average profitable life of the vine five years. Under the best conditions it may last a year or so longer, but the crops are usually lighter.

It is recognised that Sydney presents the only market at present for Passion-fruit from the Tweed. and the Sydney market is only available after the winter crop in the counties of Cumberland and Northumberland is over, and before the summer crop comes in. It is a good market from the end of October until the end of December, but as soon as the southern crop and summer fruits appear (about the end of December) it "slumps" as far as this district is concerned. However, as the main crop comes in from the end of October until January, the major portion can be marketed in Sydney at satisfactory prices. After the end of December the prices that are ruling do not cover the cost of picking, packing and forwarding.

Authentic data as to the financial aspect of Passion-fruit growing in this district are difficult to obtain, but certain estimates may be made. Land ready for the plough can be secured for about £45 per acre.

The cost of establishing an acre of Passion-fruit and maintaining it until profitable returns are secured, is in the vicinity of £40. Assuming four annual crops to be the profitable life of the vine, a sinking fund of £10 p.a. would be required to recover the £40 expended in establishing an acre. Interest at the rate of 6 per cent p.a. on the price of the land would be £2/14/-, making a total of £12/14/- to be recovered before any profit can be expected.

In addition to this, the seasonal expenses for cultivating, pruning (if practised), picking, packing &c. would have to be considered. Reckoning the average yield at 200 bushel-cases per acre, and allowing for half of the crop being unmarketable, there remain 100 bushel-cases, which, at an average (and conservative) price of 15/- per bushel-case, gives a return of £75 per acre. The cost of marketing, including the case, is 6/- a bushel from Murwillumbah; that is, £30 for marketing the crop, which leaves £45 profit from the returns. The amount of £12/14/- has still to be subtracted from the return of £45, which leaves a net profit of £32/6/-.

Pulping, which is destined to play an important part in the Passion-fruit industry generally, would form a useful means of dealing with fruit from this district that could not be sold on the ordinary market advantageously.

### Appreciation.

Writing from Leeton, an appreciative reader of the "Fruit World," who is giving up fruitgrowing to go in for other business, states:—"I should like to tell you that if I were continuing in the fruit industry, I would not be without your journal, as it always contains such a lot of useful information."

### Couldn't Stall Him.

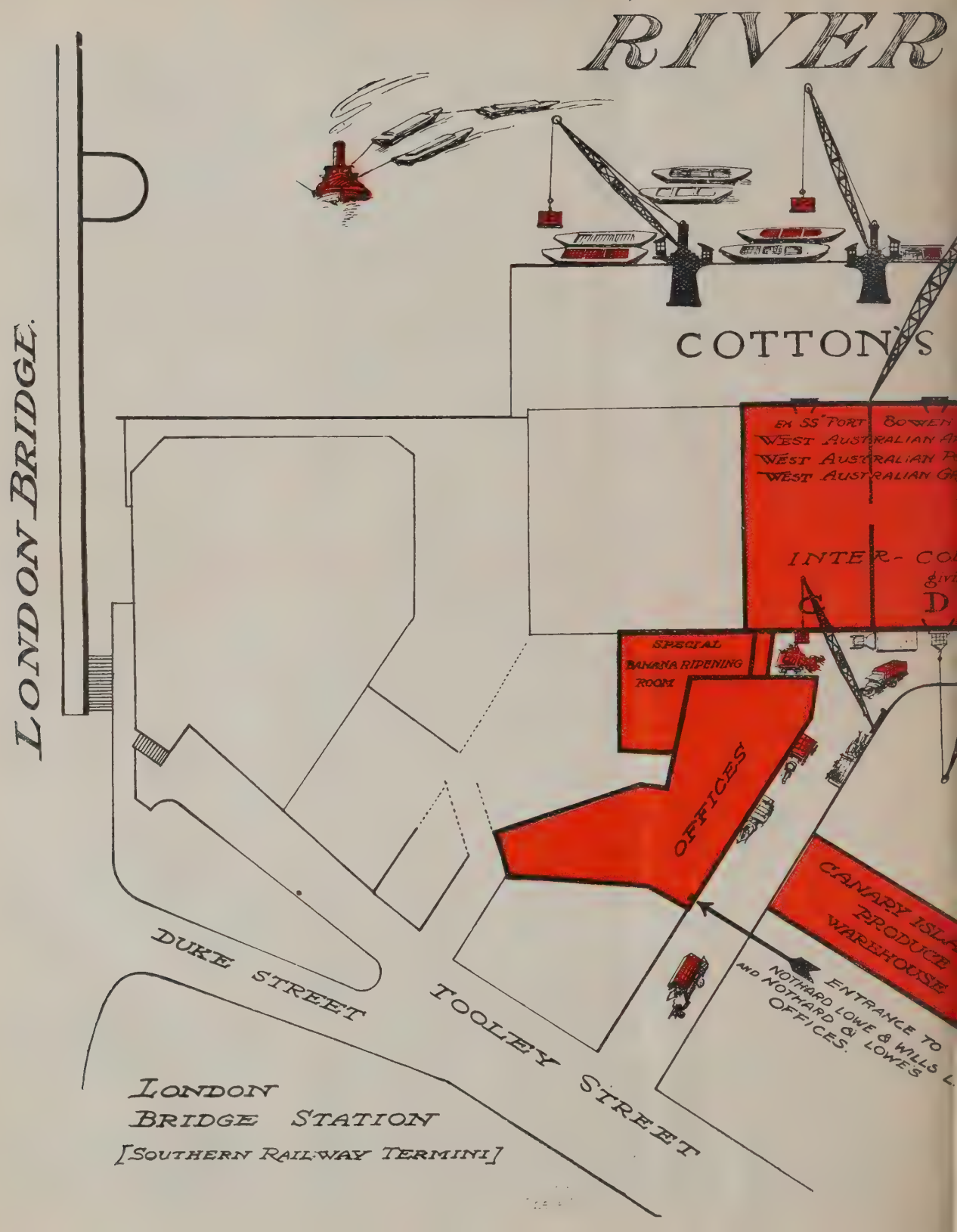
Whilst down for the Agricultural Show in Adelaide, a countryman took his sweetheart to a city theatre.

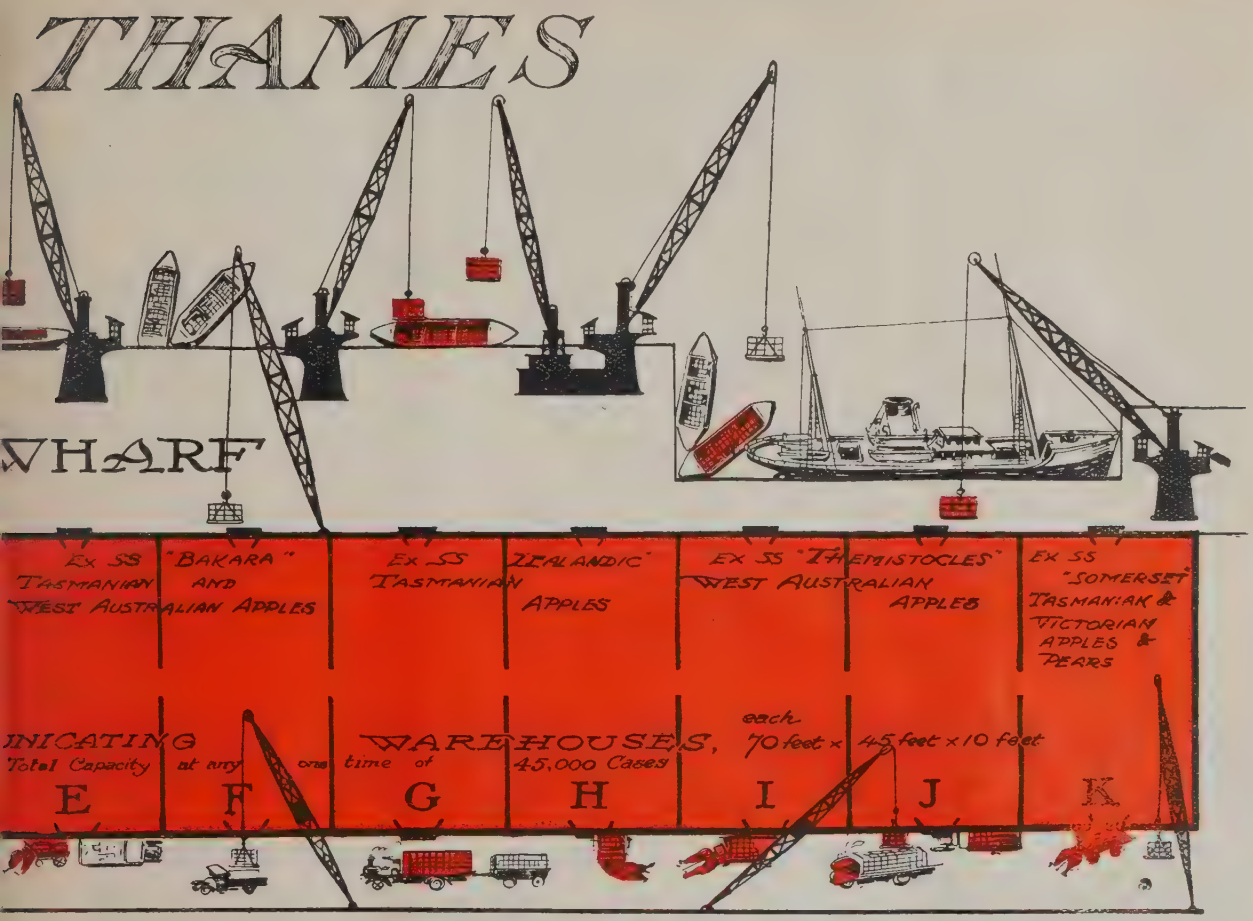
Going to the ticket office, the girl hanging on to the sleeve of his coat, he banged down some money, and said—

"Twa seats."

"Stalls?" inquired the ticket clerk.

"Look here, my man," said the countryman rather sharply. "Dinna think because we come frae the country that we're cattle. Gie's two cooshioned seats."


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WEST AUSTRALIAN P
WEST AUSTRALIAN G
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# Imperial Fruit Show.

**An Interesting Report of the Big Display at Birmingham.**

**Australia Wins Citrus Prizes.**

**(By F. W. Wakefield.)**

**Birmingham, Oct. 24, 1924.**

THE IMPERIAL FRUIT Show was officially opened to-day by the Lord Mayor of Birmingham, (Alderman Williams), in the presence of a large assembly. In his address he stressed the value of co-operative effort upon all sections of the fruit industry. They had a common interest. He cordially welcomed the overseas growers, and he had no doubt that the English growers would be able to learn something from them, and possibly the "colonials" could take a few points from them.

The chairman of the committee, Mr. George Swift commented upon the great advance evidenced by the exhibits of English grown fruit over all previous shows in England. It was evident that the English grower was waking up to the fact that he has one of the world's largest markets at his door. The "colonial" growers had set a standard in grading and packing for the home grower. On comparing the standards of the English grown fruit with that exhibited on previous occasions, he considered that the home grower was to be congratulated on the progress made during the past four years.

Sir Francis Flood, who represented the Minister of Agriculture, stated that the Ministry regarded the Imperial Fruit Show as a happy example of co-operation between all sections of the horticultural industry. The Department believed that the exhibition would serve, from the point of view of education, a most valuable purpose, **and do much to foster the fruit-eating habit.**

Mr. F. L. Gabel who represented the Dominion of Canada at the show, and who also took a prominent part in the judging of the exhibits, stated that he had never in the whole course of his experience as a judge at fruit shows, had so much difficulty in making awards. In one class a competitor actually scored 99½ points out of a possible hundred. In other classes, scores of 98¼, 96¾, 95¾, 93 and 92 were attained.

Mr. W. G. Lobjoit, O.B.E. (the Director of Horticulture, and Chairman of Judges), noted with very great pleasure the progress made by the English growers in the packing and marketing of the fruit crops.

On the motion of Mr. George Jackson, a hearty vote of thanks was passed to the Lord Mayor.

**The Show.**

A magnificent display of fruit was made at this show at Bingley Hall, Birmingham. Principally Apples and Pears were exhibited, but interesting exhibits were also submitted from semi-tropical Dominions as well. Unfortunately, seasonal considerations did not permit of Australian competition in the British Empire Section of the Apple displays. It was pleasing to note however, the eight entries from Australia in Class 4 of the citrus section. The gold medal presented by the Humber Fruit Brokers Ltd., Hull, for award in this class was won by Mr. E. G. Wood of Victoria, who also secured the third prize in the same section. The silver medal, also presented by the Humber Fruit Brokers Ltd., was won by Mr. N. M. Brooke.

It was regretted that better quality fruit was not selected by the Kangaroo brand. The packing was excellent, but points were lost on the color, size, and edible quality.

**The King's Exhibit.**

His Majesty gave his support to the Imperial Fruit Show, and made a very notable exhibit of fruit from the Royal Garden, Windsor. It was a display of great merit, consisting of about 80 varieties of Apples, 40 varieties of Pears, and several varieties of Medlars and Grapes which attracted considerable attention.

**Canadian Exhibits.**

An imposing array of Apples was exhibited by the Dominion of Canada. The separate provinces each had specially selected delegates representing them, and the Dominion Government had a stand displaying fruit from all parts, from which was distributed literature relating to the fruit growing industry of Canada, and immigration propaganda.

It was of interest to note that Canada exports over three times as many Apples to Great Britain as compared with Australia, and is to some extent in direct competition with the home-grown fruit.

**Growers' Associations Exhibits.**

Co-operative Associations in England exhibited, in non-competitive stands, very attractive displays of the various fruits produced in their respective districts. This should do much to promote the effort in England.

**Studley College Stand.**

One of the most attractive displays of fruit at the show was made by this college which is a horticultural training centre (exclusively for women), situated in Warwickshire. The quality of the fruit exhibited, particularly some of the Pears, was really excellent; the tasteful arrangement of the small stand compensating for lack of space.

**Horticultural Research Stations Exhibit.**

The technicology of horticulture was dealt with at three stands held respectively by the Long Ashton Horticultural Research Station (University of Bristol), East Malling Experiment Station, and the Board of Agriculture.

Exceedingly valuable and useful practical information was disseminated from these stands. The former dealt specially with fertiliser experiments and the necessary mineral substances for fruit production. Of special interest was the definite correlation between the absence of certain soil substances and the pathological symtoms exhibited by the trees.

This is a matter I will write for further at some future time—it is exceedingly valuable work as indicating the fertiliser requirements of orchards.

The East Malling Station dealt mainly with stocks, and clearly indicates by the results achieved, the lines upon which we should work in Australia. The Director of this Station broadcasted by wireless a most valuable and suggestive chat entitled "Individuality in Fruit Trees."

**Cold Storage Conference.**

With reference to the conference on cold storage, I suggested that since so many overseas representatives were present, an excellent opportunity was presented for an informal discussion on the subject of Fruit Transportation practice. The suggestion was taken up in order to have a review of the vast range of practical experience of the various delegates, with the technical experts present.

# The Wembley Exhibition

**Australian Fruitgrower tells his Impressions, and offers Suggestions re Developing the Market for Australian Fruit in England.**

Mr. A. W. Blowes, a well-known fruitgrower of Orange, N.S.W., (who sailed from Australia in May and took over 300 cases of N.S.W. fruit for the Wembley Exhibition), recently returned by the "Jervis Bay" from England.

Mr. Blowes is of the opinion that fruit from New South Wales compared more than favorably with other fruit displayed. The Exhibition was on big, comprehensive lines, and was a great advertisement for empire goods. He was disappointed however, at the selling arrangements of the Exhibition. The selling rights of the fruit had been handed over to a Mr. Burnside, who had the right to purchase fruit at the current market prices, and to re-sell it at a profit. Thus, if Apples were only 12/6 a case, Burnside purchased at that figure though the fruit offered to him might have been worth (owing to its quality) three times that price. Apples were being sold at Wembley at 5d. and 6d. each. It was a very great pity that the producers did not get the benefit of these favorable prices.

The fruit displays at Wembley, states Mr Blowes, were excellent, the choicest fruit being exhibited in baskets and on plates under glass in a large cool store. Some of the outstanding impressions Mr. Blowes

gained in England were the possibilities of the extension of the trade, especially the sending of high grade fruit. Previously he had been told that the early shipments were the best, but he was now convinced that later shipments would bring the better prices.

In regard to the coming season, the American crop was several million cases below last year's production. Americans had last season cold stored vast quantities of fruit to cope with the Wembley trade, and it was not likely that Australia would have to meet such intense competition in the coming season.

Another outstanding impression is the conviction that improvements should be made in the delivery of the fruit, particularly the better timing of the arrival of the boats. According to present arrangements, several boats with large cargoes arrived simultaneously, thus glutting the market, which glut might only last a week.

It did not seem practicable to cold store this fruit on its arrival owing to the heavy cost of storage, and the possibility of the fruit not holding up after being held so long in the ship's cold store. The same difficulty with regard to simultaneous arrivals applied to citrus fruit as well.

Mr. Blowes frankly acknowledged the difficulties surrounding the subject, viz. the fact that some steamers were faster than others, and that some went via the Cape,—others through the Suez Canal. The first point however, was to recognise the difficulty and then to find methods for the necessary improvement.

South Africa was an increasing factor in fruit supplies to the United Kingdom. That country sent all classes of fruit, including Apples.

Complaints had been made at sundry times by growers regarding the speculators and the agents. Personally Mr. Blowes was of the opinion that both had their legitimate place in the distribution of fruit. It would be a mistake to eliminate either.

Regarding the quality of the fruit shipped, on the whole the great bulk of Australian fruit was of good quality and well packed. He was firmly convinced that it was a mistake for Apples such as the "blemished" grade despatched last year to go forward.

Regarding fruitgrowing in England, Mr. Blowes saw nice crops of fruit which were wall grown and received expert attention, but orchards in Kent and other places were not run on the same commercial lines as in Australia, the methods of cultivation being entirely different. In nurseries trees were budded 6ft. from the ground and were planted out in orchards 30ft. apart; huge trees were allowed to grow. In some cases it was reported that crops varied from 40 to 70 bushels of Apples. While these trees were growing, small fruits such as Currants, Raspberries, Gooseberries, Strawberries etc. were grown between. When these small fruits were taken out the orchard was sown down in grass.

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She: "What are you thinking about?"

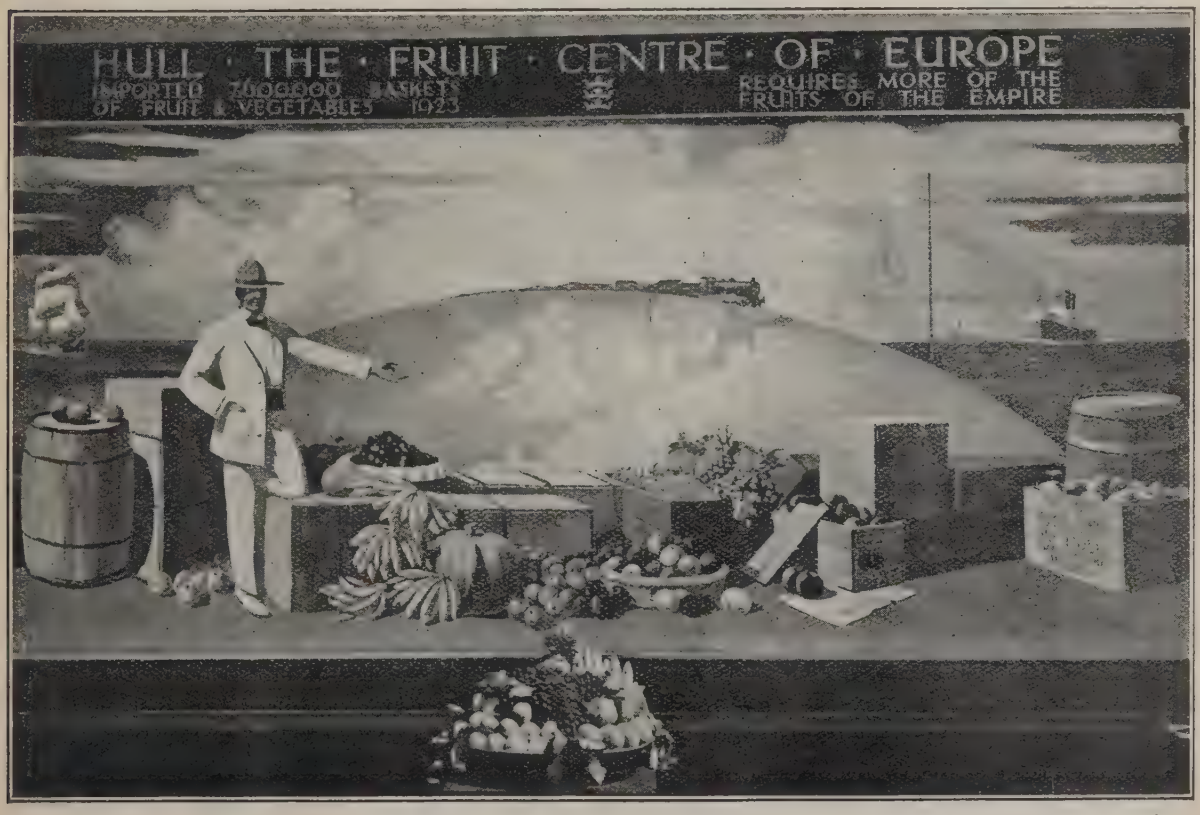
He: "Same thing you are."

She: "Don't you dare move."

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The man who can't make a mistake can't make anything.—Abraham Lincoln.

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*(Supplied through the courtesy of White & Son Ltd., Hull).*

This Picture was exhibited in the Civic Hall, Wembley Exhibition during the Hull Civic Fortnight, July 1924. It was painted by the Hull School of Arts, and measured approximately 20 feet x 9 feet.

# The Australasian Fruit Trade.

## Important Hints from National Fruit Trades Federation.

### Freights Should be Paid in London.

WITH a view to the improvement of the Australasian fruit trade, the National Federation of Wholesale Fruit Traders appointed a committee to prepare a memorandum thereon, for discussion by those engaged in the trade in Great Britain, and the memorandum as settled is now issued with the hope that it may be useful to growers, shippers, inspectors and other Government officials concerned.

Whilst the efforts of various Governments have been directed towards securing a good name for the produce of their respective countries, it does not appear that sufficient consideration has been given to the difficulties which some of their regulations cause on this side of the world; it would seem that legislation has been **endeavouring to obtain idealistic conditions irrespective of cost**, instead of a realistic condition which embodies ideals coupled with commercial requirements.

It may at once be stated that any suggestions herein contained are not meant to imply a desire to upset statutes or regulations made under same; rather are they intended to show where some of the requirements are not at all helpful when the fruit arrives at British ports, but involve much time, trouble, and expense without corresponding advantage to the country of origin or to the actual producers, and retard quick distribution.

Absolute perfection may be unattainable; improvements can be made which may result in better returns to fruitgrowers, and the minimisation of increasing charges.

Costs of production have been materially added to, by increased wages all round for cultivation, picking and packing at the orchards, and for procuring timber, the cost of nails and cases, higher cost of wrapping paper, and for the manning of ships and the provision of more accommodation and comfort of crews, which finds expression in the higher inland and ocean freights that have to be paid.

On this side, handling and transport charges influenced in exactly the same way, have increased enormously, and the tendency is fast approaching a still higher standard.

Whilst these increases should be counter-balanced by greater purchasing power, it must never be forgotten that Great Britain

**offers a market**

to the whole world on equal terms, once goods arrive here, and that, whilst higher charges may be made on some fruit importations, producers in many foreign countries enjoy greater facilities, and have much less to pay for freight, while their wages generally are also on a considerably lower scale.

**Selection.**

Care in selection is of primary importance. Fruit from young vigorously-growing trees, if sent at all, should not be mixed with fruit grown on well-matured trees; the former is soft and spongy, breaks down from its own vigour and bulk, and suffers much from handling, as it bruises more easily, and once the skin becomes broken, speedily rots.

Many packages when opened, if showing one, two or three rotten fruits, are at once

**regarded with suspicion;**

although 95 per cent. or more may appear good and sound, the price obtainable will be at least one shilling less; while on a heavily supplied market, the difference may be several shillings.

The use of pure sulphite wrapping paper to a large extent, prevents one rotten Apple from messing another, but whilst it confers advantage in this respect, if one or more be rotten, sound fruit in the same case is always suspected.

A blemish which is no larger than a pin-head when the fruit is packed, may develop quickly until the temperature of a steamer's hold is

**"collared,"**

and the fruit, although classed and packed to one grade, may lose its grade in consequence. It is, therefore, strongly recommended that specially strict compliance with regulations concerning grades be observed.

**Packing.**

The present system of packing Apples is unsatisfactory, and we strongly recommend that the American system as now followed by the New Zealand growers be universally adopted in Australasia.

In packing the present cases whilst they should always be well filled (especially as fruit is retailed here by weight and not by the piece), care should be taken that there

**be no undue pressure**

on any of the contents. Often, when cases are opened, bad Apples are found in the corners, possibly because of hurry, or failure of the packer to hold the fruit together as packing proceeds, so that the fruit becomes irregularly placed.

Even in cases that have been rather slackly packed, corner Apples have suffered, apparently because they were originally somewhat unnecessarily forced into their places.

**Cases.**

Cases should be strong, neat and clean in appearance. Tasmanian cases requires less re-coopering than any others, and are difficult enough to open, so that banding or wiring is entirely unnecessary.

The timber of which they are made is of fairly straight grain, is not brittle, and the nails hold well, but many are stained by the sap having run and discoloured the wood, probably through lack of protection from weather whilst the timber is seasoning.

Victorian cases are comparatively rough in appearance, the ends often split badly, the lids and side palings curl, rendering the piling (here) uneven and unsightly; space is an item of great importance in warehouses in this country, as rents are very high, and, when cases pile unevenly, the space of a whole tier is easily lost.

South Australian hardwood cases were this year very frail indeed, breakages at the ports of discharge were frequent and numerous, also many of those made of pine and encompassed by a strand of wire became mis-shapen and broken, the wood not being of sufficient strength.

West Australian cases are fairly good, but the palings splinter badly through so many being cut across the grain; while the nails used do not seem to be long enough to make the package sufficiently strong.

New Zealand cases are very good, well made, and neat, but being of soft wood they would not stand the handling without the wires.

Complaint was made to the National Federation this year by the Australasian Shipping Conference that cases from all the States were frail, and it was pointed out that, under the terms of the bill of lading, re-coopering was a liability that has to be borne by the consignee, and suggestion was made that consignors should be instructed to wire their cases.

A suitable reply was sent, pointing out the incorrectness of the statement that **"cases from all the States were frail,"** and attributing the breakage specially complained of to the stevedores.

It is, however, recommended that greater care should be exercised in selecting timber for cases, especially from South and West Australia.

**Branding.**

There is room for much improvement in branding. On many of the hardwood cases, it is more or less indistinct, especially when the ends have been roughly manufactured. Where labels are used, they are in some instances quite attractive, but the marking of grade and variety should be in larger letters on New Zealand cases, and placed where they can be more readily seen.

It is understood that "The Commerce Act" of Australia imposes branding with which growers must comply, but much of it is really unnecessary and confusing on this side; it must also be the cause of waste in time, trouble and expense to the packer.

It is all-sufficient to have the grower's name or initials (or design), the consignee's number, initials denoting variety, and figures showing size of fruit, placed on

**both ends**

of cases alike. The marking of a case with the words, "One Bushel Sound Apples" becomes a ridiculous absurdity on an ullaged case, especially on cases in which unsound fruit appears on arrival.

Some cases have the case-maker's name and address branded on them, in addition to that of the grower and the shipper.

The main considerations should be simplification and legibility; so many of those whose duty it is to handle the fruit on this side are not ready readers; they become confused with so many brands, valuable time is, therefore, wasted in sorting and piling.

The American system of indicating grade is by coloured label, blue for "Extra Fancy," red for "Fancy," and white for "Choice" (or 1st, 2nd and 3rd grades). This system might be considered with advantage by Australasian packers.

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**Sh'pping Nos.**
**431 and 432**

**Varieties.**

Although there are in a country, such as this, buyers for almost everything, it is not advised that the poorer varieties be shipped; in any event, it is urgently desired that small parcels under one brand should, if at all possible, be limited to one variety.

It would perhaps be better for a grower to miss a steamer with a variety, if he cannot make up at least ten cases of same; if only three or five cases of one variety be ready at the time when one steamer is to sail, he may be able to make up ten by holding them back for the next.

The buyer of two or three cases at a time is not despised, but he knows that small lots are passed over by those who purchase long lines, so that he does not have to meet the competition of big buyers, and he feels more certain of getting these small lots at a lower price.

To the broker or salesman, small lots are troublesome and involve disproportionate expense; in the first instance, in warehouse space for display, as they cannot be piled with other varieties, but must be kept separate; next, in classing, lotting and cataloguing, small parcels containing several varieties occupy more time and involve difficulty in selling, as it takes just as long (often longer) to sell a few cases as fifty or one hundred; they also entail more bookkeeping and accounting for.

More trouble is caused to shippers, specifications are burdened with complexity, and as time is of so much importance when documents have to be prepared and completed, in order to get them here in advance of the ship carrying the fruit, anything that can be done to save clerical work should be a consideration. And when, in addition to a number of varieties in a parcel, there are also a number of grades and sizes, it should be obvious that relatively, these small parcels are uninteresting, unprofitable, and an obstacle in the way of charges-reduction.

**Grades.**

The question of grades is not one for easy decision; many differences of opinion find expression, but it may be taken as an axiom, that three grades are quite sufficient.

Probably growers would find it more advisable to have

**separate brands**

for different grades, because, e.g., "Special," "Standard," or "Plain" may each and all embrace various sizes, variety in colour, conditions of growth and season.

Buyers are not concerned with the ideas of growers and packers in regard to grades, but they are with the actual grading;

**they do not buy**

on outside appearance, but lift the lids or sides, depreciate badly graded fruit (i.e., mixed sizes, spotted fruit mixed with clean, badly shaped specimens upsides with those more truly formed), and then assess their valuation on the worst in the case. If, however, a grower puts his best of each grade ("Special," "Standard," or "Plain"), under separate brands, all he need do is to take care that each is good of its grade, and thus obtain for each brand a name that will carry far.

Buyers soon find that "John Doe" packs good, sound, clean, evenly graded fruit, and gives good weight in his cases; those who want "Special" will compete for that grade, those whose needs are satisfied with "Standard" for that grade, those who have customers for "Plain," for that, but it will be for "John Doe," in preference to other brands that are not so well graded or packed.

If, when the grower gets his returns he finds his lower grades have made more than the higher, he may safely attribute the differences to the vagaries of the market; in other words, as sometimes happens, there are more buyers for one grade than another at that particular time.

Before leaving the subject of grading, something may be said regarding sizes. Generally speaking, dessert Apples should

**not be larger**

than 2½in. in diameter. Culinary varieties need to be large, say, 2½in. or 2¾in. in diameter; for some markets 3in. meet with favour for dumplings, or for baking whole; if under 2½in., there is too much of the Apple lost in peeling and coring.

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**Fruit Merchants**
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Prompt Settlement.

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LONDON, E.C., 4
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*Solicit Consignments*

The High Standing and Long Experience of this Firm is a Guarantee that the Best Interests of Consignors will be conserved.

**Regulation of Shipments.**

It is considered very desirable to have the shipments better regulated.

All concerned on this side fully recognise the enormous disadvantage of time and distance, also, that vessels of varying speeds, and trading by different routes, cannot conform to an arrival schedule that would obviate all objections, differences in insulated chamber capacity, and of methods of refrigeration, must also be allowed for, as no one line, nor even three lines could cope with the trade.

It is, however, considered that something can be done towards improvement, and the avoidance of vexatious delays which may so easily result in clashing of arrivals.

When at the close of a season a steamer has made a protracted voyage, much of the fruit carried by such steamer may be more or less out of demand. Heavy supplies of English and Continental soft fruits are then occupying the markets, and the public turn attention to them, if only for the sake of change.

The latter happened a few years ago, when one steamer was 90 days making the voyage, bringing varieties in the middle of the season which buyers always look for in the first fortnight or three weeks. This year the same steamer was again a delinquent, being the first to load and leave, the tenth to arrive; another came at the end of the season, and 91 days elapsed from first loading to final discharge.

Such lengthy voyages, with perishable fruit in the holds, should not be tolerated; an undertaking should be given that, barring accidents, fruit-cargoes should not take longer than 60 days from first port of loading to final discharge port.

Thirty days earlier arrival would have meant, in this particular instance, something like £10,000 to £12,000 more for the fruit cargo carried, as by the time the fruit was delivered for sale the markets were full of other fruits; it is safe to assume that less waste would have been found amongst the Apples and Pears, and sales would have taken place when markets were still in need of supplies and consumers had not so much choice of early summer fruits.

Steamers voyaging to a time schedule may, of course, sometimes be a few days behind due dates of arrival, but that is of minor consideration; other steamers, and especially those carrying fruit from one port only, should be expected to come right away from that port with all possible speed.

Another matter of importance is that holds containing fruit should

**not be opened**

at subsequent ports if more than three, or at most four, days have elapsed, as a dangerous rise in temperature is sure to occur which is certain to affect the fruit already well on the way to being cooled down; and, unless the fruit taken in at the subsequent port has been pre-cooled before loading, the latent heat it contains must prevent the temperature of the fruit first loaded being "collared" as soon as it is necessary to prevent the development of "Bitter Pit," and cause undue ripening, tending to inevitable waste.

It is also thought that vessels which land cargoes in bad condition should not be given fruit to carry in subsequent years.

**Consignees' Numbers.**

The use of consignees' registered numbers has facilitated discharge and delivery, except where one grower has divided his consignments between two consignees, and used the same number for each.

It is hoped that the system of a separate number for each consignee will be universally and rigidly adopted and applied.

**Ocean Freights.**

It is considered that the ocean freight is too high, and efforts to obtain a reduction before next season will again be made by the National Federation.

Much statistical information has been collected from time to time, which shows unfair discrimination against the fruit industry.

Further representations will also be made towards getting the shipping companies to accept payment of fruit on this side. Fruit from almost every other part of the world comes to England on a "Freight collect" basis.


**J. G. MUMFORD**

(Established 1906)

**Fruit & Vegetable Salesman**

Account Sales Posted Daily

**APPLE EXPORTER**

"Fruit Exchange,"

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Branches { Western Market / Victoria Markets

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*Reference—Satisfied Growers in all States.*

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Established 1822.

A century's experience in handling

FRUIT OF ALL DESCRIPTIONS

All Consignments for U.K. will have Personal Supervision and Attention

Account Sales and Cheques despatched immediately after sale.

**3 SALTER'S HALL COURT,**

**London, E.C., England**

Cables:—FIREBRICKS, LONDON
Bankers:—Bank of England.

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Chas. E. Howship, 129 Queen-st., Melbourne, and Surrey Chambers, Perth, W.A.

Victorian Agent: H. M. Wade & Co., 471 Flinders Lane, Melb.


"What are you studying now?" asked Mrs. Jobson. "We have taken up the subject of molecules," answered her son. "I hope you will be very attentive and practice constantly," said the mother. "I tried to get your father to wear one once, but he couldn't keep it in his eye."

## SOFTWOODS V. HARDWOODS.

The case problem is now exercising the minds of the fruitgrowers, as there are several factors, not altogether apparent, that are influencing the output, the price, and the quality.

Owing to the general slackness in the building trade (timber) there is a considerable field in fruit cases to absorb much of the timber in stock and a fair amount of skilled labour, and as a result we may expect to see a better case on the market than for the last few years. Instead of using scrap timber to such an extent, a greater amount of good timber will be used, and the grower will thereby benefit. There is no gainsaying the fact that all else being equal, the good clean looking softwood case of fruit will sell before the dull, stained and warped hardwood case of the same fruit, with a consequent advantage to the consignor of the former.

The slackness before mentioned has had the effect of reducing the price of the softwood case, but another factor which no doubt has helped in the reduction is the importation of a considerable number of shooks of Baltic pine. In the writer's opinion, these Baltic pine cases are easily the most attractive cases seen this season, and should make a very successful appeal to the purchaser. The softwoods generally are much easier to handle on account of weight and ease in nailing up.

It is understood that the Railways Commissioners are considering favourably the appeal of a large section of the fruitgrowers to make a variation in the number of cases to the ton of fresh fruit. During the war, when softwoods were unobtainable, and hardwoods held the market, the number of cases to the ton was fixed at 40. With an advantage of 4½ lbs. to 6 lbs over the hardwood cases, the growers have asked that for all softwood cases the Railways should fix the ton at 44. If this decision, which is reasonable, is reached, the saving to Goulburn Valley growers would be in the vicinity of 1d. per case in favour of softwood.

Another equally so, or perhaps more important factor, is the allowance for shrinkage which must be made by the makers of the hardwood cases.

In most instances a half-inch has to be allowed the hardwood for shrinkage. Therefore, when a grower used a newly-made hardwood case the actual cubical content is approximately 1 1-12th bushels against the actual bushel contained by a softwood in which no allowance has to be made for shrinkage. This connection between this clause and the freight clause is apparent.

It will pay fruitgrowers to carefully weigh the pros and cons as well as their softwood and hardwood cases, as all the advantages of the softwood are not altogether apparent.

# Fig Culture.

**"Kadota" is Synonymous with "White Endich."**

**Useful Canning and Jam Variety.**

The "Kadota" Fig, as far as I am aware is synonymous with "White Endich," writes Mr. Rodney Fowler, Manager of the Government Experimental Orchard at Blackwood, South Australia. The tree in our Blackwood collection was imported from California, but I have not had an opportunity yet of comparing the fruit with an American description of "Kadota." I hope to do so, however, this coming season, though as our Fig is growing in close proximity to Capri Figs, there is a danger that with caprification its character may be entirely changed.

It is stated in America that caprification of Kadota changes its color from light amber to old rose or pink. Description of our Fig is as follows.—

"Tree spreading, fairly strong, leaves clear shiny green, leathery, sinus shallow and broad, giving leaf a flat, broad appearance, 8 x 6 inches, lobes scarcely noticeable, edges of leaf wavy, stalk medium and fairly stout, dull creamy white.

Fruit smooth, pale green skin, few white dots, ribs fairly prominent, eye open, stalk short and stout, rounded pyriform, pulp rich rosy wine color—full good rich flavor, sweet and syrupy."

In our collection we have some 130 varieties, comprising Figs of all sizes and qualities. Some of the most prominent are Castle Kennedy, White Adriatic, Gros Verte, White Genoa, Blue Province, Brown Turkey, etc.

Figs do not thrive too well at Blackwood, but appear to like the Murray Valley soils, as they are doing well at the Berri Experimental Orchard. It has been successfully demonstrated there that a commercial dried Fig can be produced equal to anything imported.

It would seem from the unequal sizes of the trees in our collection, that selection of varieties suitable to different localities would play as important a part in successful Fig culture as suitability of soil and climate, though these are also important factors.

The Kadota Fig (or White Endich) likes almost any soil in which the common orchard trees do well, and is to be found almost in all parts of our State, and some very fine specimens are to be seen. As regards temperature it should be hot enough in summer to ripen the fruit properly, and as the young wood is very susceptible to frost injuries, care should be taken not to plant in very low situations.

The Fig likes plenty of moisture in the soil, but not too much, and does well under irrigation. It can be grown for family use more readily than for market or drying. For drying, the Fig should attain a good size and not contain too much moisture, as excess of moisture will cause "souring," and fermentation is set up before the Fig is dried. Even before the fruit is gathered souring will take place. A large proportion of Figs in this orchard soured on the trees last season owing to continued cool, moist conditions during the ripening period.

Kadota grows readily from cuttings and is generally propagated in this manner, or from offsets or suckers. Cuttings should be made in winter while the trees are dormant, and should be cut from well matured wood of previous season's growth, preferably stocky, short-jointed pieces 12 to 15 inches long, which should be deeply planted and attended to like vine cuttings.

Very little pruning is necessary after the tree has been shaped in its first few years. The cultivation is much the same as for other orchard trees, though when old trees completely shade the ground they do well without any attention. As they usually attain a very fair size it would be better to plant wider apart than with the average orchard tree, and 30 feet or even 40 feet will not be found too far apart.

The Smyrna Fig cannot be grown without caprification, and this is brought about by suspending the fruit of the Capri Fig in the branches of the Smyrna tree, so that the pollen may be distributed by a small insect known as the Blastophaga wasp, an insect so minute that it can make its way through a very small opening indeed. This insect goes through its life cycle three times during a period of 12 months, and in the wild Capri Figs nature has provided a tree that will produce three crops of Figs in the one year, thus always securing a home for this minute insect.

It was with great difficulty that the Blastophaga was introduced into South Australia, and the credit for its introduction after many unsuccessful attempts is due to Mr. Robson of Hectorville.

'Phone Central 8479

**F. W. Vear**

*Fruit Importer and Exporter*

COMMISSION AGENT

49 WILLIAM ST., MELBOURNE, VIC.

**Solicits consignments of APPLES, ORANGES, BANANAS, PINES and all other fruits.**

**Account sales with cheque daily.**

## O, JERUSALEM!

**"Fruit World" News Reaches the Holy City.**

**Japan and America also Take Notice.**

**Bouquet for Mr. Clapp.**

Writing from the Bristol University, England, on 26th October, Mr. F. W. Wakefield, of Australia, mentions that he recently received a visit from a trade representative from Jerusalem, regarding the articles published recently by the "Fruit World," in connection with the transportation of Joppa Oranges.

* * *

An advertiser called in to tell us that he had received enquiries from Japan in reference to the articles advertised in this journal.

* * *

Mr. Harold W. Clapp received a nice compliment from America quite recently. Readers will remember the "Fruit World" published an interesting account of what the Victorian Railways Department was doing to assist the fruit industry. The article was re-published in "The Florida Grower," together with some cordially appreciative editorial comments, pointing out the broad national viewpoint of the Railway Department in thus assisting the development of this country.

**Edward Jacobs & Sons**

**Covent Garden Market LONDON, England**

Solicits Consignments of Australian Fruit.

Tasmanian Representative:

**W. D. Peacock & Co. Ltd**

PRINCES WHARF, HOBART

Shipping Number 418.

---

As the parting instructions were being given, the fresh young salesman picked up his bag and started on his initial trip. "Good luck to you," said his chief; "wire us important news."

The following day this message was received: "Reached here safely, good room with bath, feeling fine."

The manager wired back: "So glad, love and kisses, good-bye."

—"Forbes Magazine."

We place your Fruit on the markets of BRITAIN direct.




FOR PROFITABLE RESULTS —

consign your fruit to

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# The "WHITE" SERVICE

is the only organisation which offers an efficient **auction service** in the three chief fruit ports of Great Britain. By enterprise and up-to-date methods, based on long experience, Whites' have created the most efficient Broker's service in the Mother Country.




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## "WHITE" SERVICE

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# Tasmania

SEASONABLE NEWS AND NOTES.

DISTRICT REPORTS

THE general climatic conditions experienced during the past month have adversely affected the development of the fruit crops, especially Apples and Pears.

The showery and cold weather has been conducive to the growth of fungus disease, and black spot is showing up to a marked degree, especially upon untreated areas or susceptible varieties.

Fruitgrowers who have applied the "delayed dormant" and "pink" sprays have until now managed to keep the disease in check, but even in the most carefully sprayed areas a percentage of black spot is in evidence.

COVENT GARDEN,
LONDON
**Ridley, Houlding**
& CO.,
**Large Receivers of Australian Fruits.**
Solicit Consignments of
**Apples, Pears, &c.,**
Best market prices and prompt account sales returned.
Correspondence invited.
Representative in Victoria
THE
International Fruit & Mercantile Co.,
410 Flinders Lane, Melbourne
MURDOCH BROS., Hobart

**HAMBURG**
(GERMANY)
**J. H. Lutten & Son**
Hamburg (Germany)
**Fruit Brokers & Auctioneers**
Established 1835
**FINEST TABLE APPLES A SPECIALTY**
**Sale Room "Fruchthof"**
Consignment of Apples Solicited
Best market values and most favorable conditions
Cash advances made if desired

Under the conditions it is advisable to continue with applications of bordeaux and lime sulphur at summer strengths.

Bordeaux should be applied at this period on hard skinned kinds which are susceptible to black spot, at a strength of 1-1-40. Cleopatra, Sturmer, French Crab and most of the Pear varieties should receive this mixture, but tender-skinned kinds such as Jonathan, Cox's Orange Pippin, Scarlet and Dunns' are apt to russet when treated with sprays having a copper basis at this stage, and it is advisable to apply lime sulphur at a strength of 1-60 (33deg. Beaume test).

In making these applications it is important that the trees only receive the spray in the form of a light mist, just wetting the foliage and fruit. In no circumstances should "drenching" take place; such is quite unnecessary and at this period is likely to produce harmful results.

**Woolly Aphis Parasite.**

During the month a parcel of Apple wood infested with woolly aphis and heavily parasitised with aphelinus mali, has been received through the courtesy of the Western Australian Department of Agriculture.

Numbers of these insects have been hatched out and forwarded to the principal fruit districts of the State for liberation upon infested trees.

Reports received from New Zealand indicate that this economic method of controlling the woolly aphis pest has been readily taken up by growers in all centres, and that especially in the Nelson district the results are proving most beneficial in combating the pest. The insects are establishing themselves amongst the orchards of the Dominion.

**Fruit Census.**

In reply to the deputations that have waited upon the Federal Government from the Australian Fruit Council requesting assistance in marketing fruit on "overseas" markets, the Minister of Customs has been emphatic that the various branches of the industry must first organise themselves at this end.

A request has been received that each State supply figures as to the principal varieties in cultivation so as to show the potential value of the crops. The Secretary of the State Fruit Advisory Board, Mr. P. H. Thomas, is arranging with Municipal Councils and Fruit Boards to compile this information through the inspectors. The census should be completed by June, 1925.

**Overseas Export Grades.**

A number of alterations are proposed to be made in the Customs regulations governing the export of fruit, (Apples and Pears). These consist of (1) A change of designations from "Special," "Standard" and "Plain," to "Fancy," "Choice" and "Standard," and (2) A greater allowance of blemishes in the two lower grades.

So far as the first is concerned, **Tasmanian growers are unanimous that the original appellations should stand, and strongly oppose and alteration, especially that in order to preserve uniformity the State standards have been brought into line with them.**

A suggestion is made also that the amount of blemishes allowable in "Standard" be increased from 10 per cent to 100 per cent, but these must not aggregate on each fruit a circle more than one eighth of an inch in diameter instead of ¼ inch as is now in force.

"Plain" grade is likewise altered from a 30 per cent to 100 per cent allowance not exceeding one quarter of an inch in the aggregate, instead of ⅜ths of an inch.

This is a move in the right direction. The original requirements are not attainable in all varieties, especially where climatic conditions are conducive to fungus development.

It is not generally realised that the American standards give much more latitude in their requirements. California has built up a world trade with a 100 per cent allowance of blemishes limited to ¼ inch in their second grade (fancy), and 100 per cent limited to ½ inch in the third grade (choice). This is reasonable and does not debar the marketing of a large proportion of good edible fruit.

The
North and Midland Counties of England
**Are directly served by**
**THE PORT OF HULL**
**Every modern facility for prompt handling of fruit.**
**Docks and quays provide for quick discharge of cargoes.**
**Sales held daily during the season.**
**Express train service to all parts of England.**
Australian Apples Sold at Hull in previous seasons brought the highest prices.
**For further particulars apply to**
**AUSTIN WILSON**
476 Collins Street
MELBOURNE

**Customs Minister Visits Tasmania.**

During last month the Minister for Customs (Hon. H. E. Pratten), and the Comptroller of Customs (Mr. Oakley), visited Tasmania and made a tour of the principal fruit districts.

A meeting was held at Huonville in which deputations were received from the Advisory Board and kindred associations in respect to general

# A PROFITABLE SEASON

IS ASSURED YOU IF YOU USE A

# "LIGHTNING" FRUIT GRADER

**THE GRADER WHICH CAN NEVER BE SUPERSEDED**

The money saved in time and wages will pay for your machine in a few weeks.

The INCREASINGLY WIDE POPULARITY of the "LIGHTNING" is sufficient recommendation of its worth.

**CAPACITY UP TO 1,000 CASES PER DAY. CANNOT BRUISE THE FRUIT.**

PACKING SPACE—The Grader illustrated has 80 square feet of packing space—room for 20 cases on the packing rails at one time.

Write for particulars of **"LIGHTNING" ELEVATOR CONVEYOR**

**Prices from £16/15/-**




Grades APPLES, PEARS, PEACHES, APRICOTS, ORANGES, PASSION FRUIT, &c.

## The "LIGHTNING" Combined GRADER and INSPECTION SORTER

This is the greatest labor-saver ever offered to the jam and canning fruitgrower. The Conveyor gently turns the fruit over and over, enabling the grower to sort out all that is blemished or overripe, and when attached as a feeder to the Grader, they make a perfect combination. Capacity up to 1,000 cases per day.

**Lightning Fruit Grader Co.**

**109 CROMWELL STREET, COLLINGWOOD, Vic.**

**Telephone J 1084.**

*Cable and Telegraphic Address: "LIGHTNING" Melbourne*


matters affecting the industry, viz:—

Bounty on fresh fruit exported.

Limitation period of export.

Navigation Act.

Regulations controlling export of dried Apples.

The Minister listened attentively to the deputations, but did not give much encouragement that any assistance would be forthcoming.

There is no doubt that Tasmania in common with other of the smaller States is being retarded in her development by several Federal measures. Feeling is very strong at present especially in regard to the Navigation Act which has prevented some of the best Apple carrying vessels from visiting Hobart. Already a number of prominent business men have definitely made a move toward secession as the last resort to obtain the State rights in this respect.

### Tamar Valley.

Mr. Neil Campbell, M.H.A., of Winkleigh (Tas.) reported on the 24th November that crops as a whole will be heavier and cleaner than last year. The principal fruits grown in this district are Apples and Pears, and present indications are that there will be a medium yield of the former, and a light crop of the latter. Last year, the Tamar districts produced and marketed approx. 300,000 cases of fruit, the area under cultivation being about 6,000 acres.

Growers are closely watching the work of the State Advisory Board and the Australian Fruit Council in their efforts to put the industry on a sound footing commercially, by the effective control of grading, packing, and shipping.

### Launceston.

Trees on the whole look particularly healthy and vigorous, and quite able to carry and mature heavy crops, writes Mr. Frank Walker, of Launceston. The principal fruits grown are Apples, Pears and Plums, the varieties of the first named being Delicious, Crofton, Jonathan, Tasma, Pomme de Neige, London Pippin, King David, St. P., C.O.P. Pears—Beurre Bosc, Beurre Clairgeau, Winter Cole, Keiffer's, W.B.C., B. de Anjou, Glou Morceau.

Pear crops point to being very light and patchy, a fair amount of Black Spot showing on some varieties. Apples promise a medium crop, and much cleaner than last year.

### Safe Home at Last.

A widow, who was weeping over the newly-made grave of her husband finally dried her eyes and said: "There is one comfort in it, anyhow; I shall know where he is at night."

**Syrupers for Fruit Canneries.**—Attention is directed to the A-B "Economy" Syruper, which is obtainable from Messrs. Tombs and Howcroft Pty. Ltd., 369 Post Office Place, Melbourne. Some of the points of merit claimed for this machinery are as follows:—

(1) No bruising,—(a) A rubber displacement ring absolutely prevents injury while syruping. (b) an inverted cup-shaped valve also assists in permitting the fruit to stay in a heaped up position above the top of the can. Two very important points.

(2) To avoid trouble with damaged cans, a heavy star turret rounds out slightly flattened cans that might otherwise jamb and be spoiled.

(3) As regards Syrup.—a valuable feature is the method of filling around the circumference of the valve with the air vent cutting off at the same time as the syrup flow, preventing a flow back from the vent pipe. This feature together with the rubber displacement ring permits the minimum use of syrup without injuring the fruit.

There are a number of these Anderson-Barngrover Syrupers in Australian canneries.

### A Reasonable Question.

Teacher: "Now, how old would a person be who was born in 1890?"

Bright Pupil: "Man or woman?"

# Queensland.

### Banana Sales.

**Brisbane, December 7th.**—The latest move in Brisbane by the local Banana merchants is causing a good deal of controversy in the daily press.

It appears trouble has been brewing in fruit circles for some time past, and yesterday the climax was reached when the Banana merchants to the number of six or eight declared the Sales Manager, Mr. Geo. Chester, (black), and went on strike by refusing to handle or buy Bananas.


Gerald Da Costa




Head Offices—
Floral Hall, Covent Garden,
LONDON, W.C.2

*Importers and Distributors of all kinds of English, Colonial and Foreign Market Produce*

**BRANCHES:**

COVENT GARDEN, W.C.2.
8, Russell Street.
524, Central Avenue.
Stand. 151, English Flower Market. Stands, 31, 32, Foreign Flower Market. Apple Warehouses, Jubilee Market.
Tel.: Gerrard, 868 and 5786.
Telegrams: "Geracost, London."
Stands, Nos. 151, 152 and 153. Spitalfields Market, E.1, and 54 Brushfield Street, E.1.
Apple Warehouses:
Church Passage, Spital Square, London, E.1.
3, 4 and 5, The Arcade, Borough Market, London, S.E.1.
G.N.R. Potato Market, King's Cross, N.1.
18, Stanley Street, Liverpool. (Facing Commercial Sale Rooms.)
Deansgate, Manchester.
17, Humber Street, Hull.
Southampton Docks, (Facing No. 45 Shed).
202/4, Franklin Street, New York, U.S.A.
South West House, Greenmarket Sq., Cape Town, South Africa.


The merchants' case is as follows:—The Secretary of the Agents Association (Mr. H. Williams), states that all Banana merchants had decided not to make any further purchases of Bananas so long as Mr. Geo. Chester was conducting the sales. It is stated that the agents have no animus against the Committee of Direction. They were quite prepared to resume buying when another salesman was appointed. This was final.

Mr. Williams alleged that certain lines of Bananas are put up and sold at low prices, much below value, to a friend of the salesman who recently left the employ of the Committee, other lines were passed in and ripened by the Committee of Direction in their own rooms and sold direct to retailers.

The Banana merchants consider that an independent buyer should be appointed by the Committee to purchase Bananas on its behalf, and thus create fair competition.

The friction over the sale of Bananas has drawn an explanation from Mr. Ranger, Manager of the Committee of Direction. He states that on December 4th some friction developed between the buyers and the auctioneer, as a result of which buyers left a large quantity of Bananas on the hands of the Committee. On the same day a letter was received from the Banana Merchants' Association demanding—among other things— the dismissal of the Sales Manager (Mr. Geo. Chester). This request was not acceded to, and the merchants met Mr. Ranger in conference.

One of the main points raised by the merchants at the conference was the method of the Committee of Direction passing in lines that did not realise the reserve placed on them. The merchants allege abuses in this connection. As a result of the conference, arrangements were made to appoint a man to purchase these lines on behalf of the Committee instead of the auctioneer passing in the lines referred to.

The Banana merchants after consideration of this decided that they would not continue to operate if Mr. Chester was retained as auctioneer.

Mr. Ranger further states that the Committee will not entertain this suggestion, and are prepared to do all the ripening of Bananas themselves. For this purpose 20 ripening rooms have been erected and a further number are in the course of erection, so that within a few days they will have sufficient rooms to handle all Bananas arriving in Brisbane.

* * *

### Stanthorpe.

The Stanthorpe season is approaching and unfortunately the Fruit-fly has made its appearance early. Whether this is a good time to have infection or not remains to be seen. Old local growers state that if fruit-fly comes into the district early there is a probability of harvesting the late crop clean. However growers are preparing to fight the pest.

Thousands of fly traps have been purchased and the Harvey-Lure is being used freely, forty gallons being purchased in one week.

Great things are expected from the Lure, experiments have been carried out at Mr. Schultz's Peach orchard, Nudgee, and although the district is badly infested, this gentleman was able to harvest his entire crop and find only two per cent of fly-stung fruit.

During the season Mr. Schultz has used 1½ gallons of Lure at a cost of 15/- plus cost of traps.

### Palmwoods.

### Papaw Preserve.

### Value of Advertising.

The Palmwoods canning factory has been engaged for some time turning out a new delicacy, (Papaw preserved in Pineapple juice). A delicious product has resulted, which will no doubt meet with a ready sale when it becomes generally known to the public.

This delicious food-fruit is grown in large quantities and although in great demand their is at certain periods a glut, and with a factory operating, surplus fruits can be disposed of at a satisfactory figure.

The value of the Queensland Fruit Exhibit at the recent Melbourne Show is shown by the increased consumption of Papaws in the south. Previous to the show 20 cases per week was as many as Melbourne could take, now anything up to 350 double-cases per week are being sold at remunerative prices.—Advertising pays.

### Rockhampton.

The Committee has taken control of all fruit coming into Rockhampton, from December 8th.


H. M.
WADE
& CO.
*Fruit Merchants*

Prompt Advices of Sales
—CHEQUES WEEKLY—

471 FLINDERS LANE
MELBOURNE

SYDNEY:

Fruit Merchants — Commission Agents

S. & M. Greenberg

No. 1 Store
Fruit Markets, Sydney
Also at Melbourne Markets

Tasmanian Shipping No. 161.
Victorian Shipping No. 42.

PROMPT RETURNS




SULPHATE OF AMMONIA, throughout the World, has *always* enjoyed a fair measure of popularity, as a source of the supply of nitrogen to plant life. RECORD Sales during the current season indicate its Australian reputation was *never greater*, and it may be fairly termed

*"The Ideal Nitrogenous Fertiliser"*

*Sulphate of Ammonia literature from—*

The Australian Gas Light Co., Haymarket, Sydney, N.S.W.; The Broken Hill Prop. Co. Ltd., Newcastle, N.S.W.; The North Shore Gas Co. Ltd., 193 Alfred Street, North Sydney, N.S.W.; The Metropolitan Gas Co., 196 Flinders Street, Melbourne, Vic.; South Australian Gas Co., Weymouth St., Adelaide, S.A.

Mr. C. W. Sellars, a son of an ex-Banana merchant has been appointed Sales Manager.

The Committee anticipates good results at Rockhampton. Growers in surrounding districts have been asking for control at Rockhampton for some considerable time past.

### Fruit by Mail Trains.
### From New South Wales.

The Commissioners of Railways of New South Wales and Queensland are to be complimented for the assistance they are giving the Cherry and small fruit growers of New South Wales. Large quantities of Cherries and Apricots have been coming forward, and to assist quick delivery a fruit truck is attached to the Mail trains on both the N.S.W. and Queensland mail trains daily.

Special fruit trains from Stanthorpe will commence operations on December 15th and run daily.

### Montville.
### Death of Mr. W. H. Harvey.

"Fruit World" readers will regret to hear of the death of Mr. W. H. Harvey, of Montville, Blackall Range, Queensland. After a very short but painful illness he passed away at Beerburrum hospital on December 5th.

With the passing of Mr. Harvey goes one of the oldest and most progressive Citrus growers of Queensland. Many fruitgrowers visiting Queensland will remember the genial host of the Blackall Range.

### Citrus Crop Prospects

The bronze Citrus Bug has been making its presence felt during the last month or two. The crop which promised good is now regarded as very poor. In fact, a poorer crop has not been seen for many years.

## CLEANING UP DESERTED AREAS.
### Californian Appointed.

Mr. R. A. Prest who has been engaged in studying diseases of citrus in California has been appointed as inspector under the Diseases in Plants Act, Queensland. Mr. Prest has had considerable experience in citrus and has been given control of the citrus districts, his first work is cleaning up deserted and neglected areas. Already he has induced several non-commercial growers to cut out many trees which were infesting surrounding commercial groves with various diseases, a work which should have been done years ago.

### Fruit Packing Classes.

The classes in fruit packing will be continued in Stanthorpe on the same lines as last year. Mr. Rowlands, the Fruit Marketing Instructor, has made arrangements to be at Stanthorpe early in January, and remain during the season.

Classes in packing Apples, Pears, Peaches, Plums, Tomatoes, and Nectarines will be held at each centre.

The method in use last year was for growers who needed instruction to bring along several cases to the local hall and pack them in the presence of the Instructor, who would put growers on the right track.

### Bowen.

During the season just closed, nearly 300,000 cases of Tomatoes were sent to southern and Brisbane markets from the Bowen district. The running of a fruit train has been a decided advantage, and has been the means of regulating the markets.

During previous seasons Bowen was in the unfortunate position of being at the mercy of the watersiders, who invariably laughed at the growers when they were asked to handle the fruit carefully. Thanks to the railway extension, the handling of our produce is much better. Strikes will not affect Bowen from now on.

Prices during the season have been very good; in fact, a record. The weather and conditions have been ideal for Tomatoes; great crops have been harvested from small areas. Great numbers of Tomato plants yielded as many as three cases each.

Careful inspection at Bowen prior to shipping has been a factor in giving Bowen the good name it has for Tomatoes.

# Western Australia.

**Crop Reports: District News: Association Meetings.**

**Medium Crops Expected.**

A summary of the fruit crop prospects for Western Australia has been courteously supplied by Mr. Geo. W. Wickens, Officer in Charge Fruit Industries, under date December 1st, as follows:—

In October the blossoming of all fruit trees gave every promise of a bountiful crop, but since then we have had a lot of unseasonable weather: warm days being followed by cold wintry conditions, with a good deal of rain. This has affected the setting of fruits, and in place of a very heavy crop, which I at first anticipated, I now estimate that there will be medium to good crops of most kinds of fruits:—

Apples.—Jonathans, heavy; Cleopatras, good; Dunn's, medium; Yates, medium to good; Granny Smith, good; Statesman, light.

Pears.—Bartlett's, good to heavy; other varieties, medium to good.

Plums. — Jap., heavy; English Plums, medium.

Apricots.—Newcastle Early, very heavy; other varieties, medium to good.

Peaches.—Medium.

Nectarines.—Medium.

Grapes.—Heavy.

Citrus Fruits.—Too early yet to state what quantity will set, but present indications point to a very heavy crop.

### Bridgetown.

Mr. Owen Sparks, of Bridgetown, under date 24th November, writes as follows:—The crop in my immediate neighbourhood is extremely patchy, one orchard showing indications of a very good crop, and his nearest neighbour possibly a very poor one. I have a good crop generally, including the following varieties of Apples—Jonathan (heavy), Yates (good), Dunn's (light), Cleos. (medium), Rome Beauty (not yet set).

Another orchardist who exported 12,000 cases last season, does not anticipate exporting more than 6,000 cases this season.

### Donnybrook.

After one of the most abnormal seasons ever experienced here, growers are at last able to form some estimate of prospective crops (writes Mr. Gus. Sharp, of Donnybrook, on the 18th November). Most trees blossomed heavily over a very protracted period, but the result is a very patchy crop. A wide range of fruits are grown in this district, but mainly pip fruits, and it is anticipated that the crops will be much lighter than last year with the exception of Pears, which appear to be a good all-round crop.

Export varieties of Apples are light to medium, Cleos. and Jonathans leading. Peaches and Plums are fair, but patchy, whilst citrus are blooming well.

At the Annual Conference of Fruitgrowers held in November, the concensus of opinion favored control of the industry by growers under statutory powers.

### Mount Barker.

Mr. Archibald Booth, on 21/11/24, reported as follows:—

The principal fruits grown in our district are export Apples and Pears, the former being principally Jon., Dunn's and Cleos., and the latter, W. Nelis and Josephine.

The prospect of the crop at present is medium. The blossoming was exceptionally heavy, and the setting at first appeared very good, but a considerable quantity of the set fruit has fallen, we think, owing to the excessive rains, as it has been practically raining continuously since the beginning of October, and even to-day we are having quite a winter rainfall.

The crop will no doubt be heavier than last season, as on that occasion it was light.

Owing to the excessive rain all orchard operations have been very much delayed. Fruitgrowers, however, have been very busy trying to keep the fusicladium on Pears down, and up to the present the crop seems very clean. As you know, we have no fusicladium on Apples.

Indications point to a heavy crop of Cleos., medium crop of Jonathans and Dunn's, and the late varieties (such as Rokewood, Yates, Granny Smith) appear to be heavy.


**C. F. S.**

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Authorised Salesmen for

VICTORIAN, NEW SOUTH WALES and SOUTH AUSTRALIAN CITRUS ASSOCIATIONS.

SUPPLIERS OF ALL ORCHARD REQUISITES.

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**A Positive Remedy for**

TOMATO WILT, TOMATO BLIGHT, DOWNY MILDEW (on Grape Vines), CURLY LEAF (on Peach Trees).

**NON-POISONOUS**

Absolutely Safe to Use.
EFFECTIVE IN THE ORCHARD, THE KITCHEN GARDEN, AND THE FLOWER GARDEN.
Thoroughly Tested.
Numerous Testimonials.
**Packets, 1/6 each (posted, 2/-). In Bulk—7 lb. lots or more—1/3 lb.**
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**Some Installations for Foodstuffs.**

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| Aurora Pack Co. Pty. Ltd., Irymple. | Sultanas Raisins etc. |

**D. J. LATHAM**
**157 Queen Street,**
Melbourne, Australia.

### BRIDGETOWN FRUITGROWERS' ASSOCIATION.

The monthly meeting of the Bridgetown Fruitgrowers' Association was held on the 21st November, there being present the Rev. F. Davis (President), Mrs. Wrench, Messrs. E. Hill, Moore, McAlinden, Ozanne, Ankle, Green, W. Hill, A. Flintoff, Hester, Ramage, Keene, Maugher, Lake, G. Hester, Fletcher, J. Young, Owen Sparks, Walter, Blechynden, Haines, Hall, W. J. Cowen, and A. S. Lowe (Hon. Sec.). Mr. G. W. Wickens, Officer in Charge Fruit Industry, was also present.

The matter of inferior fruit being placed on the market by certain growers was discussed, and a subcommittee consisting of Messrs. G. Wickens, A. S. Lowe and the Chairman, were appointed to formulate a scheme whereby printed slips bearing the name and guarantee of the Association could be placed in cases of members of the Association.

Mr. Owen Sparks, who was recently re-elected Chairman of the State Fruit Advisory Board, gave a report of the annual conference, details of which were published in our previous issue.

Some of the finest exhibits yet seen at Bridgetown were included in the 40th Annual Show of the Bridgetown Agricultural Society, held on 19th November, when the attendance was a record one, states the "Blackwood Times." There was keen competition amongst the various exhibitors, and in regard to the fresh fruit section, of which Mr. J. Ramage was the judge, Mr. F. Davis carried off 1st and 2nd prizes for Navel Oranges, any other variety of Oranges, and also Lemons. Mr. T. E. Smith secured 1st prize for Loquats; Gooseberries (English), Mr. W. Ausden, 1st and 2nd prizes; Passion-fruit, W. Ausden; and for the best collection of dried fruits, Miss B. Sparks came 1st and Miss M. Nix 2nd.

**McPherson's Catalogue.**—The attention of readers is directed to Messrs. McPherson's catalogue on "Garden Tools." This catalogue comprises practically every kind of garden implement of value in the cultivation of the garden. Copies are available, free on request, to McPherson's Pty. Ltd., 582-92 Collins-street, Melbourne.

There are some men and women in whose company we are always at our best. All the best stops in our nature, are drawn out by their intercourse, and we find a music in our souls never there before.—H. Drummond.


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ONE-TON CHASSIS
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## TRACTORS ON ORCHARDS.

### Some Practical Hints.

In answer to the letter by a correspondent, suggesting that users of tractors might make their experiences known in the "Fruit World" columns, a grower at Merrigum, Vic., writes as follows:—

"I use a Fordson, and have a fair knowledge of most tractors on the market, and their suitability for the orchardist. For the benefit of those about to purchase a tractor, I will relate my experience with tractors.

"In the first place, the orchardist must look to what implement he wishes to draw, and buy his tractor accordingly. In the orchard, one has to do a fair amount of backing. For that reason, I prefer the tractor with wheels, as with the latter, it is an easy matter to back.

"It is not convenient to have a tractor wide between the back wheels, or with the seat too far back from the wheels, although I consider Harvey's implements the best. No matter what implements you use, if the wheels of the tractor are wide apart, or the seat in between the wheels is too far back, the driver cannot conveniently lift the many small branches out of the way clear of the tractor wheels or guard as he passes. With most tractors on the market, the driver is unable to take care of this very necessary fact, thus causing a big loss in fruit and barked limbs.

"The tractors with the foot clutch are the safest when the trees are heavy in fruit, the driver having his hands full—one engaged on the steering wheel and the other lifting branches clear of the tractor wheels—he is often in danger from a spreading limb. With the foot clutch you can operate very quickly, but without, one stands a big chance of being dragged off the tractor and the implement behind going over the top of the driver.

"If the front wheels are kept clean (also the back), the driver will find the tractor much easier to steer. Fuel will be saved, and the riding much more comfortable. For the irrigation districts, the light tractor is a big advantage in that it can be put to work more readily than its heavy brothers.

"Do not try and make the horse-drawn implement do. If you cannot buy the best tractor implement with the tractor, do not purchase one until you can.

"The implements that have the least castings in their principal parts are the most suitable behind the tractor. The plough made of castings will not stand the strain of the tractor as well as those made with forged steel.

"Keep your tractor and implement well oiled and greased. Most people, when learning to drive the tractor, put all interest into the tractor and forget the greasing of the implement. I find the grease cups require a turn every three hours."

---

### Well, Why Not?

A young man who had not been married very long remarked at the dinner table the other day, "My dear, I wish you could make bread that my mother used to make."

The bride smiled and answered in a voice that did not tremble:

"Well, dear, I wish you could make the dough that father used to make."


ALGEMEENE VRUCHTEN IMPORT MAATSCHAPPY

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(An amalgamation of the oldest and leading firms.)

AMSTERDAM — De Ruyterkade 39/40.

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For information please apply to our representative for Australasia:

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References: Union Bank of Australia, at Melbourne, Sydney and Hobart.

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CITRUS TREES
and QUALITY ROSES

A Good Start means Everything!

BEFORE PURCHASING send for Lasscock's Catalogue and prices. These South Australian grown trees are unsurpassed for hardiness, healthiness, and vigor. They will jump from the start and bring profit to the grower. Our stocks are excellent and prices right. Special attention is given to packing.

LASSCOCK'S NURSERIES Henley Beach Road, LOCKLEYS, STH. AUSTRALIA

# *See Australia First ∴ Start with Victoria*

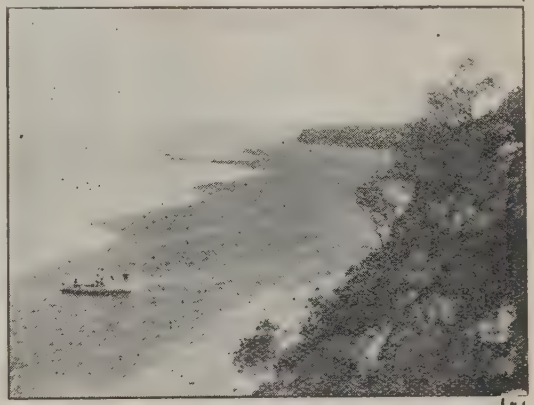
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*Spend your Summer Holiday by the Sea and enjoy the golden beaches, the swimming, surfing, fishing and boating at one of the delightful resorts on the Victorian coastline.*



**WILSON'S PROMONTORY**—the most southerly point of the Australian coast—is a National Park for native fauna and flora.

The coastline is wild and rugged, with numerous sheltered bays, and the fishing is excellent, especially at Corner Inlet.



**MARLO** overlooks the Southern Ocean, and is reached by rail and motor car via Orbost. There is splendid sport with both rod and gun in the district. Lake Corringle and the Broadribb and Snowy Rivers are close by.

*ASK FOR TOURIST TICKETS*



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**TORQUAY**, 14 miles from Geelong, with its excellent bathing beach and comfortable accommodation, has all the facilities for a restful and enjoyable holiday. Golf and Tennis are available for those so inclined.

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Call 'Phone 2898 (4 lines) or write for particulars to

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## Poultry Notes

### CONTROL OF PARASITES.

DURING the hot weather poultry parasites will become more troublesome and their control will demand more attention. How to combat poultry vermin is often a problem with the beginner. The red mite is perhaps the best known, and if we except fowl tick, the most troublesome pest of the poultry yard. For this painting the perches with kerosene tar (which is known under different names), and spraying with kerosene emulsion such other parts of the poultry house as may be infested, will keep this pest under control. The same treatment is equally effective with fowl tick.

The body louse and like species live entirely on the skin of the fowl and are mostly found in the cavity under the root of the tail, and to a lesser extent about the body. This parasite lays its eggs at the base of the feathers, principally about the posterior parts of the body and sometimes under the wings.

The main thing to be understood in connection with this parasite is that it is useless to spray houses or oil perches in an effort to control it.

The methods of control of this case are either to clip off the masses of eggs or touch them very lightly with salad oil. Kerosene should never be used as it burns the skin.

To rid the birds of the parasite itself, there is nothing equal to flowers of sulphur dusted thoroughly through the feathers, using it as an insecticide.

To be effective the sulphur must reach the skin.

The process should be repeated in about eight days, when the trouble should be at an end for a time at least. Flowers of sulphur added to the dust bath is also an excellent preventive in such cases.

### Summer Reminders.

Place some linseed before the birds occasionally. It assists them in the moult.

A little epsom salts added to the drinking water in hot weather is beneficial.

Keep the dust baths moistened. It is the hen's way of ridding itself of vermin.

Don't allow broody hens to remain on the nests. They disturb the other laying hens and often cause eggs to be broken.

Keep water vessels shaded, and change water at least twice daily in very hot weather.

Shade is essential if eggs are to be produced during the hottest period of the year.

The New Year is a time for good resolutions—but see that you carry them out.

Vermin-infested fowls soon cease to become profitable. Cleanliness is the best preventive.

## Bee-keeping Notes

### MOVING A HIVE.

The difficulty of moving a hive a short distance may be solved in this simple and effective way without loss or confusion. Take five or six of the ten brood frames with adhering bees (and preferably the queen), and place them in a hive body set on the desired new location. Put a division board in each hive to shut off vacant space, and let both hives stand two or three days of good weather. Then bring the frames left in the old hive, and slip them into the new hive, alternating with the frames already there—and the job is done.

There is less labour required and it is a neater operation than moving a hive a little every day, which, owing to the location, may be impracticable.

### Granulated v. Liquid Honey.

Under the title "Extraction, Presentation and Conservation of Honey" a writer in "Apiculteur" mentions the question of granulation, and warns readers against any mistrusting of either liquid or granulated honey, on account of its being in either of the two conditions. The writer says, "Some countries—America is one of them—prefer liquid to granulated honey, under the pretence that it gives more guarantee of purity. This is carried on to such an extent that when some honey was shipped in glass jars to New York, explanations were demanded upon the condition of this honey, which perplexed the buyers. Since then, we have sent there only liquid honey. Other countries, accustomed to granulated honey, are likely to mistrust the liquid honey. "It is very important not to encourage the mistrusting of purity in honey, on account of the different physical conditions."

It is true that, although the American beekeeper positively knows that pure honey will granulate, he feels actually ashamed of his honey when it does granulate. Instead of trying to win the customer over to acquaintance with granulated honey, he acts as if he were at fault for the granulation of his honey.

The public may be trained to acquaintance with granulation in honey, without much difficulty, but the American bee-keeper does not seem to appreciate the necessity of this, and we are simply giving in to habits that will always make honey selling difficult, for honey will always insist on granulating.

## Pig Breeding

### Intelligent Feeding.

MR. S. F. EDGE one of the most successful pig breeders in the United Kingdom, has recently been stressing the necessity for the exercise of intelligence and judgment in the feeding of pigs. On the question of gauging the proper consistency to which to make slop food, he points out that the trouble is that the variations of a pig's requirements of water as affected by weather and atmospheric temperatures are not sufficiently studied, while different mixtures of meals swell to a greater or lesser degree.

"It is," he says "precisely because I have found that I could secure so much better results without having to rely on getting skilled observant feeders who were constantly using their brains that I have become such an enthusiastic advocate of dry feeding on the self-choice system."

Dry feeding on the self-choice plan ensures rapid maturity with no setbacks due to incorrect feeding. It means that the pig's very small digestive capacity is not over-taxed, because the dry meal is masticated, while the food requirements of different conditions and ages of pigs can be regulated by the pigs themselves.

Thus a sow and litter dry feeding self-choice from the same feeder and on the same foods, can consume different rations by balancing them to different degrees. This is what actually happens in practice, as the smaller pigs eat a bigger proportion of protein than does the suckling sow.

Working out balanced rations, and deciding the correct proportions of albuminoids, carbohydrates and fats, have hitherto been a great stumbling

# INDUCE WINTER LAYING

## by reducing the strain of SUMMER EGG PRODUCTION

"HIGH Pressure" admittedly produces results; it gets things done, but in exact ratio to the use of it so it takes toll of reserve strength. Machinery evidences this in excessive wear and consequent repair bills; humans, in sleepless nights and a careworn appearance. Representatives of the animal and feathered kingdoms, whose services are requisitioned for the use of man, also provide many instances of this purely natural law. What is the present egg surplus but a result of the "high pressure" season for poultry? What will be the inevitable result of this enormous strain? The logical answer is listlessness, dropping feathers, heavy and prolonged moult, and an utter incapacity for winter laying, unless this excessive expenditure of nervous force is offset by the use of Karswood Poultry Spice (which contains ground insects). Karswood acts primarily as a tonic. It invigorates and enriches the blood, and by so strengthening the constitution frees moulting from any serious consequence, and—the important point—induces winter laying. For best results Karswood Poultry Spice should be given once a day—the cost being one half-penny per day for twelve birds.



What others have found successful, can you afford to ignore? Read the incontestable proof contained in the following testimonials:—

### LAID FIVE WEEKS EARLIER.

I tried Karswood with the best results. As a tonic, it holds a high place in my estimation. In this cold, wet climate last winter I tested it with two lots of White Leghorn Pullets. One lot with Karswood, the other without. Karswood pen laid five weeks before the other, and are still laying.

The feeding and housing have been the same throughout.

(Sgd.) J. SMALES,
249 Bathurst St., Hobart, Tasmania.

### HUNDREDS OF EGGS.

I should like to say that I have used your Poultry Spice for two years—ever since I started to keep fowls. I have never had more than eight White Leghorn fowls, and have had hundreds of eggs from them. Your Spice was recommended to me by a friend who brings it to me from town, as Mr. Meadows, who supplies me with pollard and grain, does not keep it.

Wishing you every success.

(Sgd.) P. M. BAITLE,
28 Edward Street, N. Sydney.

### BEST OF THEM ALL.

Would you kindly forward to me one two shilling packet of Karswood Poultry Spice, as my fowls have been without it one week and they are going off laying. It is the best of them all. I have tried others, and think they are not worth the cardboard that is around them, to produce eggs.

(Sgd.) T. H. COLES,
Swan Creek, Ulmarra, N.S.W.

### IT IS DOING GOOD.

I bought a half pound packet of Karswood about a week ago, as I was anxious to try it with my fowls, as they had gone off laying for some time. I am glad to say that it is doing good, and they are now beginning to lay again. I will mention about it to my neighbours who have fowls, and I hope it will inspire them to give it a trial.

With many thanks.

(Sgd.) F. O'LOUGHLIN,
324 Catherine St., Liverpool, N.S.W.

---

In letters such as these lies the proof of the benefits to be derived from the use of "Karswood." More than 500,000 Poultry Keepers use it every day in the year. Their results, as evidenced in such letters, are your inducement to use it, too. The cost is almost negligible.

---

### NOTE THE ECONOMY.

One tablespoonful (½ oz.) of Karswood Poultry Spice is sufficient for 20 birds for one day. So that it costs you less than a half-penny per day for every twelve birds.

1/- packet supplies 20 hens 16 days.
2/- packet supplies 20 hens 32 days.
13/- tin (7 lbs.), supplies 140 birds 32 days.
14 lbs. tins, 25/-. 28 lbs. tins, 48/-.

---

### MAKE THIS TEST.

Go to your local Grocer, Storekeeper or Produce Dealer. Get a 1/- packet of Karswood Poultry Spice. Test it for a fortnight or three weeks on half-a-dozen birds. Do not expect immediate results. Karswood works naturally, not suddenly. Within the time specified you will notice excellent results.

**Agents for Victoria and Tasmania:**
**HENRY BERRY & CO. PTY, LTD.,**
**Collins Street, Melbourne.**

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# KARSWOOD Poultry Spice

## Use it the Whole Year Round

block to many people. Self-choice dry feeding only requires that foodstuffs, each rich in one or other of these constituents, be placed before the pigs.

With regard to the question of vitamines, there is very little need to worry about where pigs are running out-of-doors on the open air system, with the opportunity of getting ample green food in the shape of grazing.

### A Prolific Breeder.

A four year old Berkshire—middle Yorkshire cross sow owned by Mr. Alex. Selkirk of Minyip, Victoria, has proved most prolific and valuable as a breeder. Altogether she has had 6 litters, and produced 91 pigs, the litters having numbered 11, 15, 15, 17, 16 and 17 respectively.

### Brood Sows.

So that breeding sows may be in prime condition at the beginning of the breeding season, it is well to have them come off good fresh grass or pasture of some kind, having for a short time been fed grain, being at that time in a slightly gaining condition.

The advantages of having mechanical graders in fruit packing sheds are such that both individual growers and packing shed organisations are now installing modern fruit graders.

The use of oiled wrappers for Apples in cold storage in Australia has not proved as successful in in U.S.A.

### COOMEALLA IRRIGATION AREA.

Mr. F. A. Chaffey, Minister for Agriculture (N.S.W.), who is Chairman of the Water Conservation and Irrigation Commission, points out, in connection with farms available on the Coomealla Irrigation Area, that whilst the existing law provides for perpetual lease tenure for these farms, it is the announced policy of the Government to amend the law so as to admit of conversion to freehold, and in connection with irrigation farms generally it is proposed to provide for this in the Irrigation and Water (Amendment) Bill now being revised, and which, if the business before Parliament admits, it is hoped will be dealt with by Parliament during the present session.

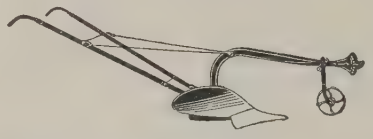

# "HARVEY" IMPLEMENTS for

## Orchard, Vineyard and Farm Cultivation

**Tractor Ploughs, Discs and Cultivators to suit every Tractor**



"HARVEY" ORCHARD PLOW.



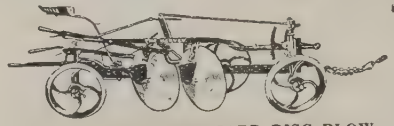
NO. 10 S.F. GENERAL PURPOSE PLOW. High Steel, Goose-neck Beam, Fixed Handles.



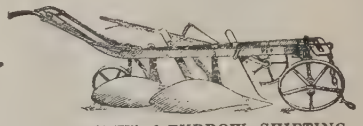
"HARVEY" GOOSE-NECK S.F. PLOW. With shifting or fixed handles. Made in 7, 8, 9 and 10 sizes.



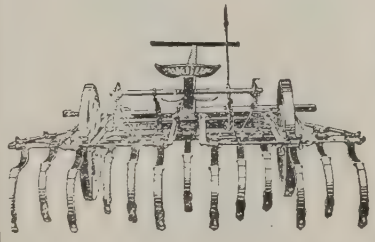
"HARVEY" SPRING TOOTH CITRUS & ORCHARD CULTIVATOR.



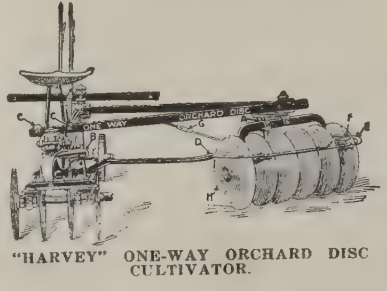
LIGHT 2-FURROW ORCHARD DISC PLOW.



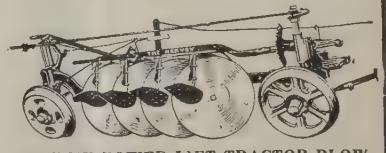
"HARVEY" 2-FURROW SHIFTING ORCHARD PLOW.



SPRING TOOTH RIDING CULTIVATOR.




"HARVEY" ONE-WAY ORCHARD DISC CULTIVATOR.



4-FURROW POWER LIFT TRACTOR PLOW.

**Write for Illustrated Catalogue**

*Office and Works:*

## D. HARVEY, *Box Hill, Melbourne, Victoria*

*Show Room:* F. R. Mellor, 440 Elizabeth St., Mebourne

## Classified Advertisements.

**Wanted and For Sale.**

Advertisements under this heading, which cannot exceed one inch, will be classified as far as possible.

**Prices are as follows:—**

Casual Advertisements, one or three months—9d. per line of six words. Nine lines to the inch.

Contract Advertisements, six or twelve month, 6d. per line of 6 words. 9 lines to the inch.

Send cash with order.

### BOOKS.

PRUNING FRUIT TREES, By C. Quinn. Illustrated. 5/- posted—"Fruit World," 9 Queen Street, Melbourne, Vic.

### FOR SALE.

ENGINE, 5 B.H.P., portable, Kerosene, "Austral" Engine (Ronaldson & Tippett), nearly new and still covered by makers' free service guarantee. No further use. Further particulars from

BASIL Y. HALL,
Panton Hill, Vic.

### FRUIT CASES.

FRUIT CASES supplied at reasonable price. Write for quotation,

R. W. HALL,
Case Maker,
Mitcham, Vic.

**OLIVES**

We wish to get in touch with growers who can supply Large Size Olives for sale at higher prices than usually paid

C. M. BROOKE & SONS,

73 Whiteman St., South Melbourne, Vic.

### DON'T BE CRUEL TO YOURSELF.

If someone advised you to take a few herbs after your meals, herbs that did not purge or were drastic in operation, but just helped you to naturally digest all the food you had eaten, would you worry with medicine? For the sake of convenience, A.M.S. is compounded of herbal juices, and can be swallowed in a small dose after every meal. Its effect is wonderful. The appetite improves, the liver and stomach becomes normal, and even the oldest man, dyspeptic though he be, feels fit and ready for a game with the kids. Sold by all chemists, 3/-, or by post 3/6 per bottle from T. A. Dickson, Chemist, Geelong, Vic.

### BIG MARKETING SCHEME.

**To Handle Australian Fruit in Great Britain, Germany and Holland.**

Mr. H. G. Colombie, of East Melbourne, Victoria, has handed us a copy of an open letter he is addressing to Australian growers, which deals with the marketing of overseas fruit in Great Britain and Northern Continent of Europe. Mr. Colombie claims to be an expert in the marketing of fruit, having had well over 25 years' experience in selling very large quantities of overseas fruit in the United Kingdom.

The circular urges the concentration of Australian fruit in the auction rooms of the Federation of Fruit Brokers in the principal ports. These brokers issue catalogues before and after the sales. The competition is thus amongst buyers to buy the fruit, not amongst many sellers to sell the fruit.

Mr. Colombie is the representative of an organisation comprising five firms, all old established as fruit brokers, and selling in nine different ports of arrival. These firms are:—Messrs. M. Isaacs & Sons Ltd., London; Macgeorge & Jardine, Liverpool; B. & J. Shaw, Hull and Newcastle-on-Tyne; Connolly, Shaw & Co. Ltd., Belfast and Dublin; Algemeene Vruchten Import Maatschappy, Amsterdam, Rotterdam and Hamburg.

The object of the organisation is the marketing of Australian fruit, and the furnishing of first hand information to Apple growers in the Commonwealth, and to ensure complete co-operation among all the markets of the U.K. and Northern Continent of Europe.

The extent of the organisation will be realised when it is stated that between 4,000 and 5,000 buyers attend the auction sales regularly held by these firms, the yearly turnover being several million packages of overseas fruit exclusively. Each of these firms issues a catalogue of sales showing buyers the prices actually paid for the fruit.

Growers may obtain advances, and make their shipping arrangements through the following:—The Port Huon Fruitgrowers' Co-operative Assoc. Ltd., at Hobart and Launceston, Tas.; International Fruit & Mercantile Co., and Dennys, Lascelles Ltd., Melbourne, Vic.; Silbert, Sharp & Bishop Ltd., Adelaide, S.A.; H. J. & F. Simper Ltd., Fremantle, W.A.

**AT LAST—SOMETHING FOR NOTHING!**

**THE PLANTERS' GUIDE.**—*An illustrated book, containing valuable information with regard to Planting, Controlling Orchard Pests, Cross Fertilization of Fruit Trees, and also accurate descriptions of practically all the leading commercial varieties of fruit trees planted throughout the Commonwealth. Sent free, postage paid, upon request.*

*SEND FOR YOUR COPY NOW.*

**BALHANNAH DECIDUOUS NURSERIES**

Postal address: **BALHANNAH, S.A.**

**ESTABLISHED 1819.**

**JAMES ADAM, SON & CO.**

*Fruit Auctioneers and Brokers*

1 TEMPLE COURT

**LIVERPOOL — ENGLAND**

**Consignees' Brand 361**

Pioneer Brokers of Tasmanian Apples in Liverpool.

Special Catalogues showing prices issued after each sale.

**Victorian Representative**

**W. H. ARCHER, Aberdeen House, 528-530 Collins St. Melbourne**

**Tasmanian Representatives**

**C. PIESSE & CO., Hobart, Tasmania.**

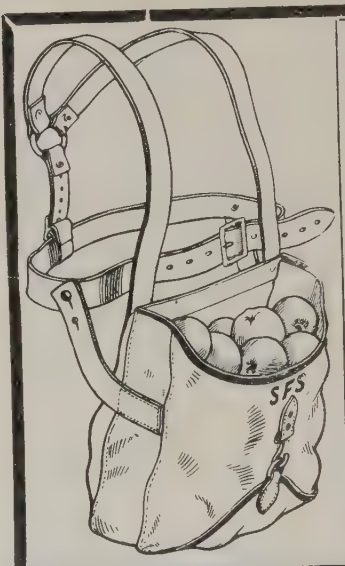
## FRUIT TREE NURSERY REPORT.

In submitting a report of the last season's sales in fruit trees, Mr. Thos. Russell, Nurseryman, Kinglake, Vic., writes as follows:—

**Apples** sold much better than other fruits, Jonathans having a fair enquiry, but not in proportion to the usual demand for that variety. Granny Smith and Delicious sold very well, Stewart's Seedling and Gravenstein being next in demand. A fair quantity of Yates sold in most cases to plant with Jonathans. Five Crown were also in fair request.

In regard to **Peaches**, dessert varieties were chiefly asked for, viz., Brigg's Red May and Hale's Early Canada. Canning Peaches and Prunes were not asked for to any great extent. A good demand was made for **Pears** early in the season, but enquiries slackened off later on towards the end.

In **Plums**, Santa Rosa were mostly required, followed by Grand Duke, Diamond and Angelina.


THE FRUITGROWERS' FRIEND

**S.F.S.**

**FRUIT PICKING BAG**

FULFILS A LONG-FELT WANT.

SOMETHING BETTER FOR FRUIT PICKING AT A LOW COST.

The S.F.S. Picking Bag has been specially designed to suit the special requirements of the Fruitgrower and to provide a comfortable and efficient method of picking fruit.

POSITIVELY NO BRUISING. EXTRA STRONG

PRICE 17/6 — Fruit cannot pass patent flap at bottom until catch is removed. F.O.R. BATLOW, N.S.W. — PRICE 17/6

**Sunnyside Orchards Ltd.**

BOX 32 -- BATLOW, N.S.W.

*Please mention "Fruit World."*

# Wood Wool for Fruit Packing

Made in Australia by Australians for Australian Orchardists.
Support a Local Industry and secure a Wood Wool

**EQUAL TO THE BEST IMPORTED, at a CHEAPER PRICE**

This product is good color and quality and does not taint the fruit in any way.

Packed in Bales containing about 80 lbs. . . . . Secure your supplies early to avoid disappointment.

*Prices on application to the Sole Agents for Victoria:*

POSTAL ADDRESS— **42 William St., Melbourne**

**F. CAVE & CO.** Wholesale Fruit Merchants **WESTERN MARKET**

**Better Packing MEANS Better Prices**

# The Guider Grader

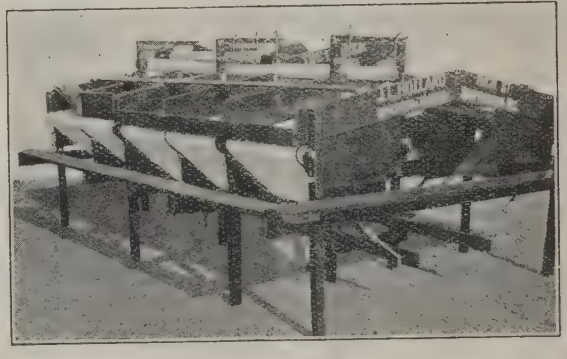
Is the **Latest** and **Best**

Purchasers write that the Machine has paid for itself in a single season

*Sole Distributing Agents:*

***Dennys, Lascelles Ltd.***

**509 Collins Street, Melbourne**



Note Spring Bottom and Canvas Bins. Each holds two cases.

# Western Australia.

A meeting of the Western Australian Fruit Advisory Board was held at Perth on November 13th.

There were present.—Messrs. Owen Sparks (Chairman), Gus. Sharp, T. Skinner, F. Simper, F. J. Becher, G. Schmidt, A. H. Convoy, P. H. Taylor, F. W. Lantzke, Geo. W. Wickens.

Mr. Sparks was unanimously elected Chairman, and Mr. Gus. Sharp Vice-Chairman.

**Central Market in Perth.**—The chairman criticised the proposed Bill, which had been drafted without consulting the growers, and it was decided that whilst in favor of centralised markets the request be made for the appointment of a representative of the growers on any marketing Board.

**British Empire Exhibition.**—A resolution was adopted expressing dissatisfaction regarding the disposal of their fruit at Wembley, and asking the Prime Minister's Department to institute enquiries.

## AUSTRALIAN FRUIT IN ENGLAND.

### Impressions of Mr. Rose, M.L.C., of Western Australia.

After an extended visit to England and the Continent, the Hon. E. Rose, M.L.C., returned to Bunbury, W.A., at the end of November (writes the "Blackwood Times.") Mr. Rose had much to relate of interest to fruitgrowers, and in the course of his remarks, he referred to the subject of handling charges. In this connection he secured the following figures from one particular firm:—For a standard bushel case, freight 4/-, wharfage, landing and delivery 3¼d., port rate ¼d., cartage and expenses at docks 3⅝d, Covent Garden expenses and agent's commission 5¼d., selling commission 5 per cent. The expenses are for the near London docks, Tilbury and the docks further away necessitating an increased charge.

Mr. Rose referred to the inferior packing of W.A. Grapes, these being sent in ¾ bushel cases. As buyers did not sell Grapes by the bushel, they had to guess at the weight, with the result that prices realised were not satisfactory. Another complaint was that the fruit was embedded so heavily in cork dust that it could not be removed without destroying the bloom. Each bunch (he states) should be wrapped in sulphite paper and nested in wood wool, 10lb. to the box. This was the condition in which 10,000 to 30,000 cases of Grapes arrived from South Africa weekly during the season.

In conclusion, Mr. Rose said that what struck him most forcibly during his visit through France, Belgium, Switzerland and Italy was the industry of the people—men, women and children. They worked from daylight until dark, both as agriculturists and in factories. "It is impossible (states Mr. Rose) for Britain and the Dominions to compete with them, and at the same time keep up our present standard of living. These manufactures from the Continent must flood the home market, and Protection must come in order to prevent this. I am pleased to be back home again, and more satisfied with the possibilities of W.A. than ever before. This State has greater possibilities than any country I saw in my travels."

## SELLING FRUIT IN LONDON.

### Representative of Mr. Barney Springer Visits Australia.

At present visiting Australia is Mr. Ralph Nichols, of the firm of Barney Springer, fruit importer, broker and commission agent, Covent Garden Market, London. The object of Mr. Nichols' visit is to make arrangements and develop his firm's interest for fruit and produce to their market from Australia generally.

In conversation Mr. Nichols explained that the firm of Barney Springer was established many years ago by the present senior partner, and that four sons are now in the business giving personal attention to every consignment. The business was commenced at the Spitalfields Market, but owing to large expansions removed eight years ago to Covent Garden.

Before arriving in Australia Mr. Nichols made a return trip to Nova Scotia and the United States, in which countries the firm of Barney Springer has many clients: advices just received showed that the firm now received 30,581 boxes of fruit within four weeks.

**American Crop is Short.**

Whilst speaking of the American Apples, Mr. Nichols states that there is a shortage of approximately 20 per cent. in the Eastern States of America, 35 per cent. in the Western States, and 30 per cent. in Nova Scotia, as compared with the previous season. The shortage, however, was principally in the larger sizes—3 ins. and over—whilst the export sized Apples were about equal in quantity to the previous year, but owing to the shortage of the larger sizes, not so many of the export sizes would actually be exported.

In outlining the policy of his firm, Mr. Nichols stated that one of the objects was to bring the Australian grower into as close touch as possible with the buyer in the Old Country, reducing the hands through which the consignments thus pass.

"We have to-day," states the representative of Mr. Barney Springer, "one of the best established retail connections that any firm enjoys, and as we do not go out to supply middlemen or jobbers, we maintain that your produce, being handled by yourselves, our firm and the retailers before reaching the consumer, it passes through the least possible number of hands. We have our own fleet of eight 5-ton motor waggons (which is used exclusively for our own work) we do not have to depend on outside contractors for this branch of our service. This reduces costs and ensures speedy delivery and careful handling.

"Our warehouse is commodious and up-to-date. It is capable of holding 40,000 boxes of Apples, apart from other accommodation which, if necessary, can carry an additional 20,000 boxes. There is thus no necessity for us to dispose of our supplies too hurriedly in the event of a market depreciation. We can hold the consignments to our shippers' benefit and until the market improves, without additional cost to them.

"Mr. Barney Springer's firm is strictly the business of a broker, and does not therefore buy against the interest of our shippers. We pledge ourselves to this policy."

With regard to the grading and packing, Mr. Nichols strongly urges all growers to put their fruit up in the best possible way, and to ship good fruit only. It would have been better for the growers last season if they had not sent any spotted fruit at all to England, for a much better price would have been obtained for the best fruit. The worst feature of the business was that it damaged the reputation of Australian Apples on the London market. Export Apples should always be the best for color, quality and pack. A satisfactory buyer creates a market because he comes back for more of the goods that pleased him. This led to the goods often being sold before they were actually landed. Poor quality fruit, however, is often left alone, which causes a depression upon the market.

**Paying Freights in London.**

Regarding the payment of freight in England, Mr. Nichols said the shipping companies had been approached with a view to getting fruit from Australia and Tasmania consigned on a freight collection basis, but so far they had not been successful, and were going to press the companies until they got the matter adjusted, and freights from Australia, New Zealand and Tasmania were put on the same basis as those from any other part of the world, and made payable in England.

Mr. Nichols will be proceeding to South and Western Australia in order to develop his firm's interests there before proceeding to South Africa.

# "CARLTON" Lead is Codlin's doom
# Cleans the Orchard like a broom!

**EVERY POUND OF "CARLTON" ARSENATE OF LEAD will go further and kill more grubs than a pound of any other paste, simply because the "CARLTON" is stronger and better-made than all others**

1.—The "CARLTON," as you buy it, is guaranteed to contain 20% Arsenic Pentoxide (the poison). No other gives a guarantee anywhere near this.

2.—You obtain 8 or 10 lbs. more solids in every 100 lbs. of the "CARLTON." It contains only about 37% of moisture.

3.—It has exceptional suspension qualities, enabling the poison to remain evenly distributed right through the spray.

4.—Owing to its extreme fineness it spreads and sticks without the use of a spreader.

Order "CARLTON" and make sure of a CLEAN Crop

F. R. MELLOR, 440 Elizabeth St., Melbourne

# FRUIT GROWERS

# DECENTRALISE!

Send your consignments direct to

**Southampton, Liverpool, Manchester, Glasgow, Hull, Etc.**

**SIMONS (Southampton) Ltd.**

**Sole Australian Agents:**

**W. WEDDEL & CO. (Aust.) Pty. Ltd., 477 Collins Street, MELBOURNE**

# The Fruit Trade

*Market Reports and News Items.*

**REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS, Advertising in this Journal.**

**NEW SOUTH WALES.**

**Sydney.**
Chilton, F., City Fruit Markets.
Louey Pang & Samuel Wong Ltd., Thomas St., Haymarket.
Rogers, F. H. G., Fruit Exchange.
Rule & Beavis, Fruit Exchange.

**VICTORIA.**

**Melbourne.**
Aurora Packing Co., 86 King Street.
Coastal Farmers' Co-op. Society, Western Market.
Davis, J., Western Market.
Lister, G., Western Market.
Mills & Co., J. B., 9 Queen St. (representing Nothard, Lowe & Wills Ltd., London).
Millis, A., & Sons, Western Markets.
Mumford, J. G., 449 Flinders Lane.
Pang & Co. Ltd., H. L., Little Bourke Street.
Silbert, Sharp & Davies, Western Markets.
Stott & Son, T., Western Markets.
Tim Young & Co., Western Market.
Vear, F. W., 49 William Street.
Wade & Co., H. M., 471 Flinders Lane.
Woolf, G., Western Market.

**QUEENSLAND.**

**Brisbane.**
Barr, A. S., Fruit Exchange.
Collard & Mackay, Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Finlayson & Son, Fruit Exchange.
Geeves, H. V., Fruit Exchange.
Robsons Ltd., Fruit Exchange.
W. J. Whitten & Co., Fruit Exchange.

**WESTERN AUSTRALIA.**

**Perth.**
Wills & Co. Ltd., G., Exporters.

**SOUTH AUSTRALIA.**

**Adelaide.**
Wills & Co. Ltd., G. Exporters.

**TASMANIA.**

**Hobart.**
Jones & Co. Ltd., H., Fruit Exporters.
Peacock & Co., W. D., Fruit Exporters, and at London.

**Launceston.**
Bender & Co., 110 Elizabeth St.

**NEW ZEALAND.**

**Auckland.**
Kadley & Co. Ltd., Fruit Auctioneers.
Turner & Growers Ltd., City Markets.

**Dunedin.**
Co-operative Fruitgrowers' of Otago Ltd.
Paterson, Thos., & Co., Vogel Street.

**JAVA.**

McCorkill, Wm., Sourabaya.

**ENGLAND.**

**London.**
Jacobs, E., & Sons, Covent Garden
Joel, R., & Sons, 16, 17, 20 Russell St., Covent Garden.
Margetson & Co. Ltd., Covent Garden.
Monro, Geo., Ltd., Covent Garden.
Nothard, Lowe & Wills Ltd., Tooley St.
Pask, Cornish & Smart, Covent Garden.
Poupart, T. J., Covent Garden.
Ridley, Houlding & Co., Covent Garden.
Swann & Co., 3 Salter's Hall Court.

**Hull.**
White & Son Ltd.

**Liverpool.**
Adam, James, Son & Co., 1 Temple Court.

**Southampton—**
Simon & Co (Southampton) Ltd., Aust. Agents, W. Weddell & Co. Pty. Ltd., 477 Collins Street, Melbourne.

**Manchester.**
North of England Fruit Brokers Ltd., represented by N. V. Wade, 8 Bridge St., Sydney.

**GERMANY.**

**Hamburg.**
Lutten, J. H., & Co., Hamburg.
Stier, Aug., Fruchhof, Reps. J. B. Mills & Co., 9 Queen St., Melbourne.

## British and Australasian Market Reports.

**London (7/11/24).**

Mr. G. Da Costa, Covent Garden, report under date, 7/11/24, as follows:—

American Apples: York Imperials, 18/- to 28/- per barrel; others, 18/- to 26/-; Oregon, Newtowns, 11/- to 15/- per box; others, 9/6 to 14/-. Pears: Keiffer, 24/- to 30/- per barrel; Comice, 26/- to 32/- box; Californian, 25/- to 30/-; Beurre d'Anjou, 18/- to 24/-; Winter Nelis, 20/- to 26/- case; Canadian Apples: Kings, 14/- to 30/- per barrel; Ribstons, 14/- to 25/-; others, 14/- to 23/-; B.C. Jonathans, 11/- to 15/- per box; South African Oranges, Navels, 30/- to 35/-; Late Valencias, 24/- to 32/-; Seedlings, 24/- to 30/-.

**Liverpool (5/11/24).**

Messrs. J. C. Houghton & Co., 1 Temple Court, Liverpool, report prices ruling as follows:—

Nova Scotian Apples.: Jon., 25/- to 28/6; others, 15/- to 27/-; Canadian, 20/- to 26/-; for Ben Davis, Hudson River, Baldwin, 20/- to 26/-; others, 21/- to 25/-. Pears: American Keiffer, 21/6 to 30/-; Washington, Winter Nelis, 12/6 to 25/- box; Oranges, Valencias, 16/- to 20/- ½ case; others, 14/6 to 24/- box; Grapes, Almeria, 6/- to 20/6 per barrel.

### Dried Fruit Prices.

**Liverpool (1/11/24).**

Messrs. J. C. Houghton & Co., 1 Temple Court, Liverpool, report 1/11/24, as follows:—

**Currants.**

Liverpool has been well supplied during the month with Currants, a total of 5,000 tons afforded good selection for buyers. There was a keen demand for Vostizza prices realised were, 58/- to 72/-. Gulf and Panariti fetched 52/- to 57/-; Patras, 47/- to 50/-; Zante, 46/- to 48/-; Pyrgos, cleaned, 45/- to 46/-; uncleaned, 44/- to 45/-.

12,000 boxes of Australian Currants, ex the "Ulysses" and "Medic" showed a great improvement, both in color and condition. Sales were completed at 48/- to 50/-.

**Raisins.**

Fine grades of Valencia's were keenly competed for at 70/- to 80/-; good quality realising 52/- to 60/-; common and medium, 42/- to 48/-.

Australian Lexias, in sympathy with Valencias, have fallen, sales 38/- to 41/-.

**Sultanas.**

Owing to the poor selection offering each arrival met a ready sale for good quality, realising 60/- to 70/-. Cretans sold readily at 82/6 to 95/-; Greeks, 65/- to 72/-.

Australian Sultanas per s.s. "Ulysses" and "Medic," with 20,000 boxes, were taken full advantage of, and the whole arrival was disposed of at 45/- to 50/-.

### Canadian Fruit.

**Canada (6/11/24).**

The following is a telegraph report received by the Department of Agriculture, Ottawa, from the Canadian Fruit Trade Commissioner in England:—

The prices quoted are for grades Nos. 1, 2, 3 and Domestic.

**London (30/10/24).**

Blenheims, 14/- to 26/- per barrel; Kings, 15/9 to 24/9; Ribstons, 12/9 to 24/9; Wellington, 14/- to 25/9; Hurlburt, 14/- to 21/9; Cox's Orange, half barrel, 18/9 to 32/-.

**Liverpool (3/11/24).**

Jon., 8/3 to 12/- per barrel; Cox's Orange, 15/9; Ben Davis, 19/9 to 25/9; King's, 29/9; Golden Russets, 31/-; Stark, 22/9; Greenings, 31/6; Oregon Newtowns, 10/- to 12/9; Winesap, 12/3 to 12/9. Pears, Keiffer, 21/9 to 29/9; American Keiffer, 16/9 to 27/-; Winter Nelis, 12/9 to 24/9.

**Manchester (4/11/24).**

Jon. 11/- to 13/9 per barrel; McIntosh, 11/9 to 12/9; King David, 9/- to 10/3; Delicious, 14/-; Wealthy, 9/6; King's, 14/- to 27/-; Blenheim, 14/6 to 23/9; Ribston, 11/9 to 19/9.

**Glasgow (4/11/24).**

Jon. 11/3 to 14/6 per barrel; McIntosh, 11/9 to 14/6; King David, 11/-; Fameuse, 10/- to 15/-; Baldwins, 10/3 to 11/6; King's, 19/9 to 32/-; Baldwin's (Ontario's), 21/9 to 27/-; Greening, 29/9 to 32/-; Blenheim, 18/6 to 23/9.

**Hamburg (30/1/24).**

Jon., 5/9 to 14/6 per barrel; Delicious, 7/9 to 11/3; Ben Davis, 19/9; Virginia York's, 18/- to 23/-. Eight barrels of Nova Scotia Kings, No. 1, 26/3.

**Copenhagen (28/11/24).**

Gravenstein (Nova Scotian) transshipped from England, 27/9 to 30/- per barrel; Ben Davis (Virginia), 31/9 to 39/9; York's, 34/- to 36/6; Jon., 13/6 to 15/-.

### New South Wales.

**Sydney (18/12/24).**

Unsettled weather conditions continued to hamper business in the Sydney Fruit Markets. Heavy supplies were still coming forward, which, owing to dull demand, were not clearing too satisfactorily.

Apples.—French Crab, 16/- to 18/-; Democrat and Crofton, 14/- to 18/-; Sturmer P., 8/- to 12/-; Vic.: Yates, 15/- to 20/-; Rokewood, 12/- to 16/-. Local: Allsops, 4/- to 6/-; Carringtons, 4/- to 10/-. Apricots.—2/- to 4/-; extra choice, to 6/- a box. Bananas.—Tweed River: Choice, 25/-. Queensland: Sugar Bananas, to 28/-. Cavendish, extra choice, to 25/-. Cherries.—White, 3/- to 5/-; Margarets, 5/- to 7/-; extra choice, to 10/- a box.

Grape-Fruit.—American, 35/- a case. Nectarines.—3/- to 7/-; choice to 12/- a half-bushel. Oranges.—Common, 6/- to 10/-; Valencias, 6/- to 12/- bushel; American Navels, 25/- to 28/- a case. Pineapples.—Smooth leaf, 14/- to 17/-; Ripleys, 8/- to 12/- double case. Passion-fruit.—Choice, to 16/-; Queensland, to 10/- half bushel. Pears.—B.P., 10/- to 14/-; local, Jargonelles, 3/- bushel. Peaches.—3/- to 8/-; extra choice, to 10/- half bushel: Plums.—Shiro, 1/- to 3/-; Wickson, to 5/-; Santa Rosa, 2/- to 6/-. Strawberries.—5/- to 15/- a dozen punnets.

### Victoria.

**Melbourne** (19/12/24).

Apples: Good to choice eating, 10/- to 16/-; good to choice cooking, 10/-, 14/-. Apricots: Choice dessert, 6/-, 8/6; medium dessert, 3/-, 5/-. Bananas: Queensland, 6/- to 14/- double. Figs, 5/-, 6/6 half case. Gooseberries, 6/-, 8/-. Lemons: Victorian, 12/-, 18/-. Oranges: Murray Valley and N.S.W., 10/-, 12/-. Passion-fruit: Queensland, 7/-, 9/- half case. Peaches. Good to choice dessert, 6/- to 8/-; medium dessert, 3/-, 4/-. Cherry Plums: 4/-, 4/6. Pineapples: Queens, 20/-, 22/- double. Strawberries, 6d., 10d. box. Tomatoes, 8/-, 16/-.

### Citrus Report.

**Melbourne** (13/12/24).

The V.C.C.A. report for week ending 13th December as follows:—

"Owing to big arrivals of soft fruits the prices for Oranges further receded. For the best quality and counts of Valencias, 14/- was top price. The standard line met a very slow demand. Prices as follows:—Oranges, Valencias, choice, 12/- to 14/-; standard, 8/- to 10/-; Lemons, 10/- to 13/-."




SPRAY MATERIALS

Of QUALITY and PROVED EFFICIENCY, including

Arsenate of Lead in paste and powder forms.

ATOMIC SULPHUR

Recommended by the Department of Agriculture, N.S.W., for the control of

Powdery Mildew on Apples

and PROVED IN VICTORIA to be capable of controlling

Brown Rot on Peaches

And Other Stone Fruits.

ATOMIC SULPHUR is the greatest boon ever offered to Fruitgrowers.

Agents wanted throughout Victoria.

SOLE AGENTS FOR VICTORIA:

Buckeye Harvester Co.

44 to 52 Francis Street, MELBOURNE (Vic.).

Opposite Spencer Street Railway Station.

### Queensland.

**Brisbane** (15/12/24).

Local Fruit.—Lemons, 6/- to 8/6 a half bushel case; Passion-fruit, 2/- to 4/-; Pineapples, rough leaf (green), 9/- a case; smooth leaf, 12/-; loose Pineapples, rough leaf, 2/- to 6/- a dozen; Papaws, 1/- to 3/6; Grapes, blacks, 9d. to 1/- a lb.; white, 4d. to 5d.; Peaches, 1/6 to 4/- a half bushel case; 1/- to 1/6 a tray; Plums, 2/6 to 5/-; Apricots, 6/- to 9/-; Nectarines, 3/- to 4/6 a half bushel case; 1/6 to 2/- a tray. Imported Fruit: Apples, Yates, 6/- to 18/- a bushel case; French Crabs, 22/6; Stanthorpe cookers, 10/- to 12/-; Broom Park Pears, 15/- to 17/-; Sydney Oranges, 8/- to 15/-; Sydney Lemons, 14/- to 16/-; South Australian Lemons (repacked), 22/6; Cherries, 12/- to 14/- a half bushel case; Peaches, 2/6 to 6/-; Plums, 5/- to 9/-; Apricots, 7/- to 9/-.

### South Australia.

**Adelaide** (13/12/24).

Fruit.—Apples, eating, 12/- to 14/- per case; cooking, 10/- to 12/-; Apricots, 10/- to 12/-; Bananas, Fiji, 28/- to 30/-; Cherries, dark, 21/- to 25/-; light, 18/- to 21/-; Currants, red, 8d. per doz. lb.; Gooseberries, 7/- per case; Lemons, 11/-; Almonds, 10/- to 12/- per doz. lb.; Brazil nuts, 14/-; Walnuts, 13/-; Oranges, common, 10/- per case; Navels, 15/-; Passion-fruit, 36/-; Peaches, 15/- to 16/-; Pineapples, 28/-; Plums, light, 7/-; dark, 9/-; Strawberries, 7/- per doz. lb.; Raspberries, 6/- to 8/-; Coconuts, 6/- per doz.

### Western Australia.

**Perth** (1/12/24).

Apples, Yates, prime, 18/ to 20/6 per bushel case; medium, 14/- to 17/-; small, to 12/-; Dunn's, to 17/-; Stone Pippins, to 13/9; Rokewoods, to 11/-; Granny Smiths, to 21/-; Chandlers, to 12/6; Romes, to 12/9; Figs, trays, 7/3; Peaches, ¾ bushels, best, 13/- to 18/3; others, to 6/-.; Apricots, prime, 10/- to 15/-; others, to 7/-; Plums, ⅔ bushels, 14/9; Cherries, trays, to 20/6; ½ bushel, to 28/-; Strawberries, best, to 16/6; others, to 11/-; Valencias, bushels, to 13/-; ¾ bushel, best, 9/- to 13/9; others, to 7/-; Lemons, bushel, to 9/-; ⅔ bushel, best, 10/- to 20/6 ½bushels, to 28/-; Strawberries, 13/9; large, to 5/-; Cape Gooseberries, 3½d. to 5d.; Tomatoes, best, to 19/9; others, to 11/-.

### Tasmania.

**Hobart** (13/12/24).

Apples, Democrat, spotty, 4/6 to 7/-; S.T.P., medium, 9/1 to 11/1; others, 5/- to 7/6; Gooseberries, 2/- to 3/- ½ case; Strawberries, 9d. to 11d. per punnett.

### New Zealand.

**Dunedin** (5/12/24).

Reilly's Central Produce Mart report under date, 5/12/24, as follows:—The week has been a busy one in the marts. with good supplies of fruit arriving.

Apples: Sturmers, choice, 18/6, 19/3, 19/6; Rome Beauty, 18/6; Canadian, 25/-. Oranges: Australian Valencias, 20/-, 22/-. Lemons: Australian, 28/-; N.Z., 22/-. Mandarins, 25/-. Pineapples: Australian, 28/-; Island, 21/-. Passions, 26/-. Bananas: Ripe, 35/-; Rarotonga, green, 21/-; Fiji, 26/6 case. Strawberries, 8½d. to 1/9 per pottle. Grapes, 3/8, 3/9. Tomatoes: Locals, 1/5, 1/5½, 1/5¾; Christchurch, 10½d. to 1/1½; seconds, 7d., 8½d., 9d. lb.; Island, 12/6; Nelson, 16/- case. Cherries, 5d. to 11d. Red Currants, 7d. Black Currants, 9d. Gooseberries, 2d., 2¾d., 3d. Pears: Winter Nelis, 4½d., 5d.

## GRAPES FOR EXPORT.

### Ohanez Variety Recommended.

Interesting information regarding the market in England for Grapes has been received from Messrs. Swann & Co., fruit importers, London, as follows:—

"We noticed some time ago that Australian growers were recommended to plant black Grapes in lieu of "Ohanez," on the grounds that black Grapes are a more marketable proposition in the export markets.

"Our experience of the British markets during the last sixty years is directly opposite to this.

"Spanish black Grapes from the Almeria district described there as "Castizas" have not the keeping qualities of the "Ohanez" or Almeria Grape, by which latter name it is now generally known. The black Grapes mentioned usually arrive about three weeks or a month earlier than the white, and can be sold at a fair price during that period, provided the condition is satisfactory (which sometimes it is not), but the moment the white or "legitimate" as they are termed, arrive, the black ones become practically unsaleable owing to the better flavour, more pleasing appearance and keeping qualities of the whites.

"The British consumer at any rate, and we do not speak for others, much prefers the "Ohanez" and will hardly look at any black variety if the two are on the market at the same time.

"With regard to black Malaga Grapes it has been found that this variety will not stand the short journey from Malaga to London as it is a tender fruit. This Grape is never shipped from Spain to these markets and although it is shipped from Australia in refrigeration, it has to meet with a quick sale whatever may be the state of the market at time of arrival of steamer, because it must go into immediate consumption for fear of its soon going rotten."

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"FRUIT WORLD OF AUSTRALASIA."

Representing the Deciduous, Citrus and Dried Fruits Industry of Australasia.

Published the First of each Month.

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**Tasmanian Director:** HON. L. M. SHOOBRIDGE, M.L.C.

**THOUGHT FOR THE MONTH.**

**Industry.**

ACCUSTOM YOURSELF TO MASTER AND OVERCOME THINGS OF DIFFICULTY; FOR IF YOU OBSERVE, THE LEFT HAND FOR WANT OF PRACTISE IS INSIGNIFICANT, AND NOT ADAPTED TO GENERAL BUSINESS, YET IT HOLDS THE BRIDLE BETTER THAN THE RIGHT FROM CONSTANT USE.

—Pliny.

## News in Brief.

Street fruit barrows in Sydney will be abolished if the Traffic Police have their way. Meanwhile the fruitgrowers and the Sydney City Council are vigorously opposing the abolition of the fruit barrows.

The losses through the fungus disease, Polystictus versicolor, where Apple trees are re-worked, is dealt with in this issue by Mr. P. H. Thomas, Government Fruit Expert, Tasmania. The violent treatment in the severe cutting back accentuates the trouble.

The export of Oranges from South Australia last season, though light, was satisfactory. Prospects for export in the future are encouraging.

N.S.W. Fruitgrowers are emphatic in their condemnation of the standards laid down by the Commonwealth Government in relation to Apples and Pears. The Oregon (U.S.A.) grades are stated to be desirable.

Interesting information regarding the use of the "Cold Potash dip" in the drying of Sultanas, is dealt with in this issue by our Murray River correspondent.

From the report of the investigators in Queensland of the Bunchy Top disease affecting Bananas, it is understood that the best line of progress is to obtain resistant stocks.

The Marston process of dipping citrus fruits in a patent preparation is favorably commented upon, encouraging results having been obtained from experiments.

The production of Prunes in Australia is likely to increase from 600 tons to 10,000 tons in a few years, particularly from returned soldiers' blocks. One grower at the recent Prune Growers' Conference pointed out the moral responsibility of the Government and questioned the wisdom of continuing to cultivate the trees. The Prune Growers' Association requests a Committee of Enquiry.

# Editorial.

## Australian Fruit Council.

**Are Growers in Control or Not?**

THE impression is deepening that the Australian Fruit Council possesses elements of danger to the fruit industry in Australia.

The tendency towards bureaucratic control of enterprise is all too apparent in regard to Australian conditions generally. It is a phase of our national life which is fraught with possibilities of much evil. Anything which stultifies individual effort or hampers private enterprise is a danger to this young nation. To develop a virile, self-reliant people, we must keep away from "Government control."

The fruit industry already knows to its cost, the harm wrought by Government directed fruit settlements and plantings, the overlapping between such departments as should really be co-ordinated, such as the Closer Settlement Boards, the Irrigation Commissions, and the Agricultural Departments.

Now, after three years' existence on Government finance, what has the Australian Fruit Council done for the industry? Even the very terms of its constitution were "flogged" through a hastily called and non-representative meeting of fruitgrowers and others by a former Minister of Customs, and the undemocratic nature of representation and its ill balanced proportions have called forth well merited censure.

The action of the Federal Customs Department in rejecting the grading regulations, as decided upon by the Australian Fruit Council, and gazetting regulations of their own creation, was indicative of the contempt with which the official mind regarded the "Council" it had created.

It was because the growers rose in their wrath and demanded that the gazetted regulations be withdrawn that this was done, and that finally the regulations which the growers desired were fixed.

Then came another affront. When it was desired to ship "blemished Apples," a section of the Australian Council was hastily called, and the Customs Minister, sheltering behind a resolution then passed, gave the required permission.

When the full Council met, it censured the Minister for his action.

The grave fault lay in the utter contempt in which the Council was held by the authorities, and the high handed manner in which this "Council," or a section of it, was used for purposes of expediency.

But that is not all.

On whose authority was a new set of fruit grading regulations sent to the State Fruit Advisory Boards? There has been no meeting of the Australian Fruit Council for several months, yet we published, in our last issue, comments on a new proposed set of grading regulations issued in the name of the "Council," and which were intended to apply during the present season.

Did the Australian Fruit Council authorise the issue and publication of these proposed new grades, or did it not?

There is only one answer. The Council did not authorise them, and it is quite possible that at its next meeting another motion of censure will be passed.

The position is farcical if it be not tragic.

Yet again. We publish in this issue a reference to what is termed a "copy of a letter from the Australian Fruit Council to the State Fruit Advisory Boards." This letter sends forth "the draft of a bill to control fresh fruit export."

Once again we repeat that no meeting of the Australian Fruit Council has been held, yet here is the "Council" functioning on a matter of vital policy.

As a matter of fact, the Council has not been consulted on the matter at all, and this is admitted in the first paragraph of the letter wherein it is stated that "the sub-committee of the Australian Fruit Council appointed to prepare a case for submission to the Prime Minister in support of a bounty . . . arrived at the conclusion that it was necessary to form an organisation, . . . etc."

So then it is admitted this was done by a sub-committee and not by the Council itself. Why this unseemly haste? Will the heavens fall?

It is time that this playfulness should cease. Either the Australian Fruit Council is a body which has some standing, or it is not.

On the subject of the desirability or otherwise of a Control Board being necessary, the Council itself and not the sub-committee should be heard, and the Council as such will be judged by growers as to whether it is competent to voice the needs of the industry or not.

Even then the danger still exists for the growers can, as before, express strong disapproval of the action of the Council and sub-committees thereof, but being subsidised by the Government, it runs its own sweet course and pursues the even tenor of its way.

One might be forgiven for thinking that the matter of a threatened increase of duty to the extent of sixpence per case on softwood shooks, was of sufficient urgency to justify the officers of the Council in summoning a meeting of the Council, or at least advising members by telegram or letter. The new proposals, if adopted, will cost fruitgrowers an additional £60,000 per annum. Seeing that the Tariff Board and the Customs Department are so closely in touch the full details are for certain in the hands of the officers of the Australian Fruit Council. But this big matter was passed over in silence, and the duty devolved on others to take the action necessary to speak in the name of the fruitgrowers of Australia.

California discarded Advisory Boards and Fruit Councils twenty years ago. Believing in private enterprise and businesslike co-operative effort, and avoiding bureaucratic control, California is the greatest fruit producing country on the earth.

Australia is slow to learn.

## New Act Proposed.

### Apple Growers Vitally Concerned.

A PROPOSAL for a Fresh Fruit Export Control Act, emanating from a sub-committee of the Australian Fruit Council, has been placed before the Advisory Boards in the several States. From the covering letter, it appears that this new proposal has not yet been considered by the full Council, and the question is being freely asked as to why the sub-committee did not first report to the Council before issuing its findings to the State Boards.

**Export Control Act.**

Summarised, the proposal is that an Act called "The Fresh Fruit Export Control Act" shall be passed. Under the proposed Act, a Board is to be appointed (1) to license exporters; (2) to appoint a Board in London.

"The London agents shall keep the Board advised as to fresh fruit prices and other matters relating to the disposal of Australian fresh fruits in England or elsewhere."

Any exporter who breaks the regulations is guilty of an offence. Penalty, £100.

The Board is to have full authority over the handling, marketing, and storage of fruit for export, its shipment, insurance, sale, etc. Any person failing to furnish any specified returns is guilty of an offence. Penalty, £100.

The Board, under the proposed Act, is to consist of six representatives elected by the growers in New South Wales, Victoria, South Australia, Tasmania and West Australia; two members with commercial experience appointed by the Governor-General and a Government nominee. The Board may appoint any necessary officers, and the salaries, fees, expenses, etc., are to be prescribed.

A charge is to be levied and paid on all fresh fruits exported from the Commonwealth after a date to be fixed by proclamation. The money so raised is to be for payment of the expenses incurred.

Fresh fruit under the proposed Act means Apples, Pears, Oranges or any other fresh fruit that may be prescribed."

* * *

The principal fresh fruit so far exported is the Apple. In the 25 years during which the export trade has been built up, the business has in the main been profitable. Even despite the unfavorable conditions with which exporting fruitgrowers have had to contend in the markets of the old world during the past few years, there are many growers whose returns are consistently highly satisfactory. The several matters which largely affect the disposal of the Australian Apples in England during the past few seasons are well known. These include the "brown heart" trouble (which has since been elucidated by scientific tests), faulty carriage in ships' chambers, depression in England and Europe, the publicity given to the blemished Apples last season, and the extra heavy competition of U.S.A.

However, taking matters by and large, Apple producers are amongst the most prosperous section of the fruitgrowing industry.

Apple growers who are exporters will be keenly interested in the new proposals, though the enquiries are persistent as to the origin of the proposed legislation. Leading exporters from the principal districts deny having had any share in this matter, especially as it is proposed that under the new arrangements extra costs will be incurred. Leading growers affirm that the way to improve the Apple export trade is not by the passing of an Act, and the creation of a Board to meet occasionally in Melbourne, Canberra or elsewhere, but the reduction of costs of production by scientific treatment and improvement in the carriage of the fruit on rail and in the ships' holds.

It is well known that lack of business acumen in the disposal of the canned fruits under control caused the loss to be very much greater than it should have been.

The dried fruit industry has been brought to its present parlous condition largely by over-production on Government financed lands, and the growers in desperation decided to vote for a form of control, hoping that it would lead them out of the morass. The conditions of the dried fruit industry, with its regrettable loss on export, and the healthy expanding Apple export trade, are not comparable.

The matter is sure to receive lively consideration, and we shall be glad to give full publicity to the various details in order that growers may be kept full advised.

England annually imports £40,000,000 worth of fruit, and it is estimated

that the local trade is worth an additional £10,000,000. Australia supplies fruit to the value of £1,000,000, which is 2 per cent. of the total importations.

We must, by all and every means, do our best to remedy defects, and to build up our export trade on sound lines.

This will best be done by a better understanding amongst the various sections of the trade. America, Canada, South Africa, Spain, and other countries bring about improvements in this way, not by the creating of bureaucratic machinery on expensive lines.

## VISITING COLD STORAGE SCIENTIST.

### Mr. A. J. Smith in Australia.

Mr. A. J. Smith, of the London Scientific and Industrial Research Department, who is at present visiting Australia in order to continue the investigations into the transport of fruit overseas, writes as follows:—"We now regard the 'brown heart' problem as solved from the practical man's point of view, since the means for avoiding the trouble are clearly revealed. This year it is proposed to extend the study to the disease of 'bitter pit,' and to endeavour to find out whether by any means it is possible to arrest the development of this trouble in Apples which, though appearing sound when picked, are pitted on arrival in England."

Mr. Smith, who is at present in Tasmania, is hoping to carry out some small experimental shipments of soft fruits this season, and later he will be returning to England on one of the Apple-carrying boats, when he will investigate the conditions in the holds, as was done in the case of three typical boats on his previous expedition.

### Citrus Growers' Conference.

A conference of citrus growers will be held at the offices of the Victorian Central Citrus Association, 360 Collins-street, Melbourne, commencing February 11th. Many matters of importance to the citrus industry will be discussed.

### Shows to Come.

| | |
|---|---|
| Somerville .. .. .. .. .. .. | March 11 |
| Diamond Creek .. .. .. .. | „ 13 |
| Yarra Glen .. .. .. .. .. .. | „ 18 |
| Bacchus Marsh (Fruit, Flowers & Vegetables) . | „ 28 |
| Garden Week (Cronin Memorial Fund) .. .. .. | „ 30 to April 4 |

The self-made man marched proudly into the office of the great financier with whom he had an appointment.

"You don't remember me," he began, "but twenty years ago, when I was a poor messenger boy you gave me a message to carry——"

"Yes, yes!" cried the financier, and now you've come with the answer?"

# Softwood Cases

## Increased Prices Proposed.

### Vigorous Protest made by Fruitgrowers to the Tariff Board.

OWING to the pressure brought to bear by saw milling and other interests the matter of an increased duty on imported softwood timbers is being considered by the Tariff Board.

Some of the proposed increases are:—

Timber, undressed (12ft. x 6ft.), British preferential, 9/6; intermediate, 9/6, general 9/6 on every 100 superficial feet.

**Undressed (cut to size for making boxes), 25/-, 25/-, and 25/-. (The present duty is 5/-).**

Hickory (undressed), 7/6, 7/6, and 10/-, etc., etc.

Evidence, both for and against the proposed increase was given before the Tariff Board, but apparently no arrangements were made for evidence to be taken from primary producers.

An urgent meeting of the executive of the Australian Conference of Fruitgrowers was therefore called by the Hon. Sec., Mr. R. E. Boardman, and the several State Secretaries were notified by telegram. If the proposed increases be granted it will mean an additional sixpence per case—over £60,000 per annum for the growers to find.

The increases would be made up thus:—

| | |
|---|---|
| Dried fruit growers . . . . . | £37,000 |
| Fresh fruit growers . . . . | 18,000 |
| Canned fruits .. .. .. .. | 6,000 |
| | £60,000 |

* * *

The position in regard to the proposal of increased Tariff from 5/- to 25/- per hundred super. feet (timber cut to sizes—shooks) is as follows:—

The number of boxes used this year for dried vine fruits alone amounted to 1,508,120 boxes. The increased Tariff, as proposed, will mean an increase of 6d. per box spread over the whole industry, or, roughly, £37,000 for growers of the A.D.F.A. alone. For every soldier grower (with a full bearing block), it will mean anything up to an extra £23 per annum on his cost of production.

The stone fruits packed by A.D.F.A. growers in the last two years have averaged a yearly consumption of 80,000 28lb. boxes, and the increase proposed is 5d. per box, or an additional burden upon the comparatively few growers of these fruits of over £1,600.

An important point to be remembered in considering this matter is that increased Tariff is proposed upon something that Australia cannot supply, namely, the requisite white timber which is very necessary to this industry to carry on its trade in an efficient manner for the following reasons:—

In the first place, there is the efficiency of the box makers to be considered. The sides, tops, bottoms and ends must be cut absolutely to exact sizes and thicknesses to enable speed in box making to be attained, and thus keep down the cost of manufacture.

Secondly, the boxes are invariably used for display purposes in retail shop windows, and must be clean and white to show markings distinctly, and otherwise to enable them to serve as display containers. This is very important from our retail selling point of view.

Again, we come into competition with the Smyrna and California industries, who use without exception the white timbers, and we are forced to use the same in order to avoid suffering from competition in this direction.

The branding of the boxes is also an important item, and as they are branded in Canada as part of the cutting and dressing operation from the "flitch" or plank, the cost of branding comes out at roughly 1-12th of a penny per impression. (Impressions cost 6/6 per 1000). Were this done in Australia, the cost would be about ¼d. (not less) even if the requisite machinery were installed, but done after arrival, the carting, breaking open and rebundling, etc., would bring the cost to much more than ¼d. per impression.

The reasons why it is impossible to use Australian timbers are:—

(1) That there is not (we understand) sufficient softwood grown at the present time to guarantee a continuous well-seasoned supply, and with present and proposed plantings it would be fifteen or twenty years before sufficient timber of the right type were available. **(Pinus insignis, by the way, is not the right type though thousands have been planted.)**

(2) Hardwood is impossible for the purposes of dried fruits requirements, and those who have had experience in its use, know that the efficiency of box makers is tremendously reduced because of the extraordinary variations in sizes, shapes and thicknesses of the timber supplied. This would completely disprove the assertion made by millers that scraps, odd ends and waste timber can be used or are suitable for use as box timbers.

(3) Another grave fault with Australian timber is that it rarely is properly seasoned, and consequently suf-

fers in appearance as well as reducing the speed of the box maker owing to warps and other unsightly faults. Its gravest defect is in its appearance as a finished article. The number of knots, holes, gum streaks and discolorations render it most unsightly in appearance, and quite unsuitable for display purposes in retail shops.

The points that we have to consider at the present time are what will happen if this increased duty is imposed.

(1) Undoubtedly, the millers will take advantage of the duty; (2) the Australian growers are still forced by the necessities of the marketing requirements to purchase imported timber as before, which will put upon them an intolerable burden just at the time when they are least able to stand it.

The very critical position of the dried fruits industry is well known to the Governments of all States concerned and the Federal Government, and as far as softwoods are concerned, it is considered that the proposed increase would be most unjust, and seriously handicap the industry in its strenuous efforts to reduce a cost of production, thus enabling them to compete with their competition overseas. This increased cost would have to be recovered from the price of their product, which would mean nearly £1 a ton just at a time when every shilling that they could eliminate from their cost of production would place them nearer their goal, viz., to meet overseas competition by substantial reductions in the cost of production.

Canada can now supply the whole of our requirements, and as we are entering into reciprocal trade with them in dried fruits, it would be bad business for us to impose duties in this direction.

The Canadian timber is pine of a most attractive creamy color, and nicely grained, showing up the marking and brand often in a strikingly effective manner.

The cutting is perfect, and invariably is to within 1-64th of an in., and the dressing is of splinterless smoothness.

It must be remembered, too, that three-quarters of the whole box is dressed both sides, while the remaining portions are fine sawn finished.

* * *

Resolutions adopted on this subject by the last Australian Conference of Fruitgrowers (at Hobart in May last) were as follows:—

(1) That wherever it is necessary to use softwood for fruit cases, the full drawback of import duties be allowed.

(2) That the Federal Government be asked to reduce the import duty on softwood cases in shooks.

# Marketing Victorian Fruit.

### Daily Sales Proposed at Victoria Market.

### This Will Provide Stands for All Applicants.

THE Victoria Market, Melbourne, is a very "live" place on Tuesday, Thursday and Saturday mornings when growers of fruit and vegetables, and sellers of other commodities attend with their wares to meet the buyers.

For many years, owing to the steady growth of the metropolis, the Victoria Market has been found inadequate to accommodate all the applicants. Some fruitgrowers state they have been waiting for fifteen years for a permanent stand, which is still denied them.

Recently additions were made, but the space is still insufficient, and the question has been seriously asked, "Can the market ever be enlarged to adequately meet all needs?"

'Phone Central 8479

F. W. Vear

*Fruit Importer and Exporter*

COMMISSION AGENT

49 WILLIAM ST., MELBOURNE, VIC.

**Solicits consignments of APPLES, ORANGES, BANANAS, PINES and all other fruits.**

**Account sales with cheque daily.**

Anticipating a negative answer, growers are considering a new proposal, viz., the opening of the Victoria Market daily, the occupants of the stands on the intervening days to be the men who cannot now be accommodated on the present market days. In other words—on Tuesdays, Thursdays and Saturdays the stands are fully used by regular holders: by opening on Mondays, Wednesdays and Fridays, in addition, the intending stallholders (now shut out) can be given definite positions. It is thought that this will be of great value to the growers, giving them facilities which they can never otherwise possess. It will also provide additional marketing facilities for buyers.

There would be no need for all buyers to attend every day, in fact it would be a physical impossibility to do so, but enquiries amongst buyers show that many would prefer to attend on what are at present the off days just as there are many who prefer the present marketing days.

This new suggestion will be carefully weighed, as it is a change of some magnitude, and will have far-reaching effects in some directions, particularly will it affect the wholesale agents in the Western Market who have their regular stands for three days per week, and who probably will not desire to make the necessary reorganisation to attend daily sales.

The Municipal Markets in Sydney are open daily from 6 to 10 a.m.

In Melbourne the Victoria Market opens at 4 a.m.—a proceeding which is fought against at the successive fruitgrowers' conferences. These hours have been termed "inhuman and unnecessary."

However, the new proposal has been brought forward seriously as a suggestion to relieve a congested position. It differs vitally from the proposals which emanated from the City Council a few years ago for the daily opening of the markets **to the present stallholders.**

What have those vitally concerned to say about the matter?

## ENGLISH FRUIT MARKET FAVORABLE.

### American Apple Stocks Lighter.

In support of the opinion, which they expressed by cablegram some weeks ago, that the outlook for Apple shipments from Australasia during the coming season is much more favorable than was the case at the same date last year, Messrs. Yeoward Brothers, of Liverpool and London, have furnished their agents in Hobart, Messrs. T. Boss-Walker Limited, with the following important information in the form of a comparison between the stocks of Apples held in cool storage in the United States and Canada on the 1st December, 1923, and on the same date in 1924.

| | U.S.A. Barrels. | Boxes. |
|---|---|---|
| 1st Dec., 1923 | 6,375,000 | 24,792,000 |
| 1st Dec., 1924 | 4,730,000 | 14,660,000 |
| | **Canada.** Barrels. | Boxes. |
| 1st Dec., 1923 | 1,006,000 | 690,000 |
| 1st Dec., 1924 | 762,000 | 570,000 |

Stocks of English cooking Apples on 1st December, 1924, were estimated at the equivalent of about 60,000 U.S. barrels, as compared with 100,000 barrels at the same date the previous year.

If a man has a really good commodity of which he has a right to dispose and of which he wishes to dispose, unless other people know of the merits of that commodity and of the fact of his possession of it, he might just as well not possess it at all.

(The Right Hon., The Earl of Birkenhead, Former Lord Chancellor).

## Jam Fruit Pool in South Australia.

GROWERS of jam fruits in South Australia are making earnest efforts to overcome their pressing problems.

A jam fruit pool is to operate, finance being obtained from the Government under effective provisions for repayment. The pool is voluntary, as was a similar pool which operated last season.

Mr. J. Donaldson, a director of the South Australian Co-operative factory, was commissioned by the Executive of the South Australian Fruitgrowers' Association to open negotiations and to draw up details.

On this subject Mr. Donaldson states:—"We were particularly fortunate in having our co-operative factory established, as without it our efforts would be futile. The objects were—(1) to secure for the grower a fair price for his fruit, and (2) to see that the Company was not unduly involved in the matter of finance."

The following are the negotiations:

The Government has been asked for a guarantee to the Bank (E.S. & A. Ltd.) for £15,000 or thereabouts to be used thus:—

"A first payment to be made to the grower on delivery of his fruit to the factory, and the processing costs to the factory for putting down the pack and the keeping of all accounts and records of the fruit taken in, thus doing away with the necessity of the expense of an extra office staff. In return the Co-operative Company, after getting the processing costs, gets the first option on the pulp at the market values of same rates, of which to be approved of by a registered board formed from the members of our growers' association.

This registered board is making provision for dealing with any other lines of fruits or vegetables as may be deemed fit from time to time. The Government reserves the right to send a representative to all or every meeting of such board, and a fourfold agreement has been drawn up by the Crown Solicitor whereby—(1) the Board, (2) the Bank, (3) the Co-op. Company, and (4) the Government are bound in the carrying out of this business, which it is believed will prove profitable to all.

The Apricot season has just finished, and although the heaviest ever known in South Australia, record prices have been the result.

It has been necessary to pass a special Act through both Houses of Parliament.

A draft of the condensed scheme would read:—

(1) A Bill to legalise the Government guaranteeing a Bank to provide funds for the fruit pool.

(2) The forming and registering of a board to deal with the fruits, etc.

(3) The arrangements with the Bank to provide the finance required.

(4) The arrangements with the factory to deal with the fruit, which is the all important side of the scheme.

* * *

Commenting on the position generally, Mr. Donaldson writes:—

"I cannot help thinking, after reading the account in the "Fruit World" of the recent interview with the Prime Minister that in putting the case from a one-sided policy (using the sugar question as a lever, which is infinitesimal for canning purposes), the deputation overlooked the lever that could be used, if they had gone for an all round question of finance to the fruit industry as a whole, and which I always advocated in my dealings with your people over there. And now, although we have done our best to handle our fruits in South Australia, we understand that it could be taken in, in Victoria, for a song. This, indeed is a bad state of affairs, as it gives our opponents a chance of putting such fruit into our State at a price we cannot accept. It has been a busy time arranging all the details: if it were ever considered necessary for Victorian fruit in some such manner as is operating in South Australia I shall be happy to go into close details."

[**Memo.**—Our report was necessarily condensed, but it may be stated that in all dealings with the Federal Government on this vexed sugar question the matter of the price of sugar for jam-making purposes is ever kept to the fore.

Growers have every right to organise as such, to estimate the coming crops, and to deal collectively with factories regarding prices, but there are two huge difficulties—(1) the sugar control and the over-production on Government financed lands.

In California growers of the several fruits have their separate organisations, and are able to make their contracts with factories, but neither the growers nor the factories are overshadowed by Government or bureaucratic control of sugar.—Ed. "F.W."]

### SOUTH AUSTRALIA.

#### Crop Prospects.

An interesting review of the coming fruit season for South Australia is given by Mr. Geo. Quinn, Horticultural Instructor, as follows:—

The fruit season here on the whole is proving somewhat erratic. On the Murray the **Apricot** and **Peach** crops are showing up well—the former, of course, are now mostly on the drying greens. **Pears** in all districts are indifferent, Williams B.C. being perhaps a little more consistent. **Apples** are patchy; Cleos., Dunn's and a few other sorts are abundant in some orchards, but in others very scarce.

Black Spot found favourable conditions in South Australia during November, and the quantity of clean fruit will be much reduced in consequence throughout some of the wetter districts. Of course, this does not mean all low grade fruit. I think we will probably have 60,000 to 80,000 cases above local storage needs, but nothing like last year's crop, magnificent in quality, and for us, in quantity as well.

The **Cherry** crop here has been rather poor. Shothole fungus and Black Aphis, followed by Cherry Slug, have been responsible. Of these the Aphis has perhaps been the worst, making a sorry sight of the tops of the trees.

A short, sharp outburst of heat in mid-December just about finished up our scanty production of berry fruits —Gooseberry, Strawberry, and Raspberry, and incidentally gave a set-back to the Cherry Aphis.

The green Aphis of the **Peach** has been unusually troublesome here this season, and the Peach trees in coastal districts are only now assuming a reasonably good coat of foliage. This has, of course, been very detrimental to the fruit, which is very scattered and variable on different kinds.

**Plums** are plentiful in some orchards, and almost absent in others. As far as can be judged this is a climatic effect. In the lower foothills good crops are noticeable, where the weather at the flowering period was propitious. Further back, in the wetter parts, these fruits are conspicuously scarce. Prunes are, generally speaking, if anything a little more consistent than other varieties.

The **Grape vines** are looking well, but the setting of fruit in general is only a medium one. Downy Mildew appeared in coastal districts during late November, but the dryness of December has held it in abeyance, and practically no damage done. In the hotter inland places Black Spot has shown up and some little loss will result as the berries have been attacked at an early stage. The season promises to be a better one for outdoor drying operations than that of last year, and the uniformly higher temperatures will, I think, persist and materially improve the quality of the juices of the Grape fruits.

**Citrus** trees are looking pretty well, and are in most places holding the young crop in reasonable proportions, but, of course, in this climate one is liable to overestimate if decisions are arrived at before January has passed by. We are constantly reminded that in the hot, dry climatic zones, where the citrus trees are watered artificially during the growing period of the crop, and the extremes of heat and cold follow rapidly on each other, we are working somewhat against the natural experiences and likings of these trees. Hence, in my humble opinion, the frequent disappointments arising through the great discrepancy between crops promised and crops harvested.

# Fruitgrowing Under Irrigation.

**By our Special Correspondent.**

## Stone Fruits.

THE APRICOT SEASON has practically finished, the weather has been all that could be desired up to the middle of January. With a heavy crop of Apricots, damp weather can cause a lot of damage, but this season's comparatively cool opening has allowed the fruit to ripen gradually and dry satisfactorily. At the time of writing (middle January) thunderstorms have passed over the Mid-Murray fruit areas, rain has been recorded measuring between ¼ to ½ inch.

Some damage has been done to the remaining Apricots, but as the unpicked fruit is only a very small proportion of the crop, not much loss will follow.

The **Peaches,** mainly Early Crawfords and the Nectarines are ripening and falling freely under the humid atmospheric conditions. Provided that growers can deal with this fruit early, little loss should be experienced.

As was the case with the Apricots, the crops of the Peach and Nectarine trees, are the heaviest carried for several seasons, the fruit on the whole is of large size.

## Vine Fruits.

The **Currants** are coloring up well and will be ready for harvesting in late January and early March. The crop promises to be a very fair one. Growers are advised to place the best possible sample of dried fruit as they are able to produce, on the market.

The **Sultana** crops also promise well and under the cool weather conditions the berries are developing rapidly. The fruit should be large in size, and given a good drying period a first class product should be produced.

Talking of Sultanas brings up that very burning question of the

## "Cold Potash Dip."

In several of the irrigation centres, local committees have been formed to investigate and report upon the action of the "Cold Dip" during the season, in relation to the drying of Sultana, Gordo, and Waltham Cross Grapes.

From the data collected some very valuable conclusions should be forthcoming, that will go a great way in proving or disproving the advantages claimed for the Cold Dip over the hot caustic dip.

The "Cold Potash Dip" should be made on somewhat the following lines,—for Sultanas 20 to 25 lbs. Carbonate of Potash, 50 gallons of water, 1 pint of olive oil. For Gordos and Waltham Cross the Potash may need to be increased to 30 lbs. No definite statement can be made in relation to the strength of the dip as the work of proving the process is in a purely experimental stage.

The immersion is one point that needs very careful watching, as this appears to be a very important factor. From last season's reports from Mildura the length of immersion varied from 30 seconds up to 10 minutes. From the limited material available, the main point to be observed is to see that the whole of the berries are thoroughly wetted. This may mean either long immersion with moderate movement of the buckets of fruit in the dipping liquid, or shorter immersions with more rapid movement to insure that the liquid passes freely through the bunches.

A further important factor appears to be the necessity of spraying the fruit upon the racks or trays while drying is in progress, if weather conditions are such as will cause the drying to slacken off. The spray should be about the same strength as the dip.

The further point of importance appears to centre around the quantity of oil to be used. An excess of oil is liable to cause the fruit to turn rancid, so much evidence is needed on this point. The oil appears to play a very important part in the drying process as well as giving the fruit a certain amount of gloss.

The cold dipped fruit has a great advantage over the hot dipped in this regard, the skin is entire and is not cracked as is the case with hot caustic dip. This means that the sugar does not escape to the outside of the berries.

Our **Lexias** especially, are usually very sugary as they become a few months old, this not only detracts from the appearance but also retards sales. Sugary fruit is always more or less damp, as the sugar is hydroscopic, i.e. absorbs moisture from the air, consequently as the atmosphere contains more moisture the fruit becomes damp. In a dry atmosphere the moisture is given off again, so we have the cycle, dry fruit, wet fruit, dry fruit, according to the saturation point of the air.

While growers are planning experiments for cold dipping, control experiments should be put down with the hot caustic dip. The number of experiments might be increased indefinitely, but a few planned on the following basis will serve the purpose. Vary the quantity of Caustic Soda, say 1lb. to 20, 25 and 30 gallons of water, dip at temperatures between 190 to 200deg. Fahr. and at boiling point.

**Sulphuring** of the finished product is also worth trying, as during the past few weeks reports from England show that sulphured fruit brought higher prices than unsulphured.

The main object to keep in view for the London Market is colour. We can produce the highest quality fruit, so provided we can put up a product equal in colour to that placed upon the market by our competitors, we should be able to hold our own on the World's Markets.

# VALUABLE APPLE VARIETIES.

## Tests in South Australia.

The Adelaide Botanic Garden Board has carried out experiments in regard to the keeping and other qualities of a few of the many varieties of Apples which ripened last April at the Mylor Type Orchard. The following information in reference to the tests is supplied by the foreman (Mr. W. Tilling):—

**Red Canada** (synonym. Tuft's Baldwin) is an American variety of medium size, of red colour and pleasing appearance, essentials which are necessary for selling purposes. The trees usually furnish a good crop every alternate year. It is at times affected by Black Spot, but not to any serious extent. Good samples which had been shed stored were shown at the October meeting of the Agricultural Bureau, and, like those cold stored, retained a good flavour.

**Hubbardston's Nonsuch** is a good keeper of bright colour and medium size, irrespective of extent of crop. The tree is a good grower, and not subject to Black Spot. Keeping does not interfere with its pleasing flavour.

**Harvey's Seedling** is also of a red colour and medium size. The tree is not of robust growth, and is not susceptible to scab. This, like the foregoing, retains its flavour when kept in cold storage. This variety was favourably reported upon by Mr. Lewis, the South Australian Trade Commissioner, when inspecting samples supplied by the board to Sir Archibald Weigall for transmission to London.

**Grime's Golden** is an old American variety of clear yellow colour and excellent flavour. The tree is a moderately strong grower, and fairly free from disease. It is a good keeper.

**Lapsley's Pearmain** is a heavy bearer, fruit of medium size, but varying according to the extent of the crop. It is among the best for keeping its flavour when stored. The tree is almost immune from disease.

**Delicious.**—This variety, which has in recent years become very popular, is one of the best keepers, but when cold stored the pleasant acid is apt to be replaced by sweetness in marked degree. Its appearance is all that can be desired. A limited number of scions of this variety will be available at the type orchard during the propagating season.

The Chairman of the Board (Mr. T. H. Brooker) has taken great interest in these tests, the results of which, he considers, warrants the board recommending the varieties mentioned as being suitable for export and ordinary commercial purposes.

# Western Australia

## Review of Fruit Industry.

(By G. W. Wickens, Government Fruit Industry Officer)

THE FRUIT CROP in Western Australia for the season 1923-24 was not as heavy as that of 1922-23: the actual returns for the former are not yet available, but it is certain they will show a considerable shortage on those of 1922-23, which constituted a record for the State. The production in that season amounted to over 1¾ million bushels: Apples alone totalling 758,998, and Grapes 428,306, the increase in fruit production for season 1922-23 over that of 1921-22 being 451,300 bushels, and I think when actual figures are to hand the production in 1923-24 will closely approximate that of 1921-22.

Particulars of kinds of fruit grown and the production for season 1922-23 are as follow:—

| Kind of Fruit. | Trees Bearing. acres. | Production. bushels. | Trees not Bearing. acres. |
|---|---|---|---|
| Oranges | 2,232 | 187,491 | 981 |
| Mandarins | 183 | 14,318 | 40 |
| Lemons | 378 | 45,713 | 321 |
| Apples | 7,937 | 758,998 | 2,126 |
| Pears | 1,054 | 106,827 | 287 |
| Apricots | 522 | 40,224 | 215 |
| Peaches | 817 | 71,447 | 187 |
| Nectarines | 176 | 15,518 | 51 |
| Plums | 689 | 61,406 | 227 |
| Quinces | 87 | 10,387 | 20 |
| Figs | 358 | 43,184 | 100 |
| Bananas and Plantains | 8 | 650 | 7 |
| | | Value. | |
| All other fruit trees | 208 | £5,284 | 121 |
| Small Fruits | 73 | £3,784 | — |
| Totals | 14,722 | — | 4,683 |

**Vineyards.**

| | Vines Bearing. acres. | Production. bushels. | Vines not Bearing (all kinds). acres. |
|---|---|---|---|
| Table Grapes | 1,050 | 131,242 | 1,695 |
| Drying Grapes | 1,088 | 176,582 | 1,695 |
| Wine Grapes | 1,007 | 120,482 | 1,695 |

**Dried Fruits.**

| | |
|---|---|
| Raisins | 5,460½ cwts. |
| Currants | 9,250⅛ „ |
| Sultanas | 1,287⅞ „ |

For a number of years past returns furnished by the Government Statistician have shown an annual decrease in the area under orchards, the only kind of fruit showing an increase in area being Grapes. This retrograde movement stopped last year when orchards increased by 482 acres, and vineyards by 889 acres, a total increase in the area devoted to fruit-growing of 1,371 acres.

Though the fruit crop of the present season, as stated above, was below that of last season, it was a long way from being a failure, stone fruit being the only line which was distinctly short.

### The Viticultural Industry.

The Grape crop was a heavy one, the Apple crop good, the Orange crop is fair, and these three kinds of fruit, as will be seen from the figures given above, comprise three-fourths of the total area under fruit in the State.

Grape-growers have not had a good time owing to the fall in prices of dried fruits on the London market, Lexias slumping badly, and Sultanas realising about half the price obtainable three years ago: Currants being the only line quoted at rates approximating those of previous seasons. The sale of table Grapes on the local market was taken in hand by a majority of growers in the Swan and Spearwood districts uniting to fix a minimum price for their fruit at the auction marts, and though all the benefits hoped for did not accrue, there is no doubt a measure of success was met with, and the co-operative selling movement which has been initiated will gather strength in future seasons.

Growers who **exported table Grapes** to London have had fairly successful results. In the majority of instances the Grapes have arrived in good condition, and when this occurred good prices were realised. Wasty fruit was sold as low as 4/-, and sound fruit as high as 37/- per case. A number of consignments brought from 18/- to 30/- per case, and I think the average price London for the season will be about 20/-; as the cases used were ¾ bushels containing less than 30 lbs. of fruit, this price is very satisfactory.

### Apple Growing.

Apple-growers on the whole have had a good selling season, both at home and abroad, for although prices in both the markets mentioned have been low at times, the average price for the season has been distinctly payable. One factor that helped considerably was the competition amongst buyers desiring to purchase lines for shipment. Eastern States as well as local firms were operating, and mid-season varieties suitable for shipping were bought at 7/6 and 8/- per case on growers' sidings: so far as I can judge from returns to hand, the average London price for the season will be 14/-.

For the half-year ended 30th June, 1924, 248,411 bushels of Apples were shipped overseas, the English market absorbing the major portion, and this year's experience has shown that Apple growers in Western Australia must revise their ideas as to the best time of the year to export, and the varieties most likely to bring good prices.

In former seasons the early boats have been the most favoured, and the aim for a number of years past has been to secure an Apple equalling the Jonathan in flavour and colour, but ripening some weeks earlier, so that the usual time of commencing export operations might be the first week in February instead of the last week in that month, and one of the advantages which Apple-growers in this State were thought to possess over those in the Eastern States was the geographical position which enabled them to place mature fruit on the London market at an earlier date: but the last two years have shown that it is not always the fruit on the early boats which realises the best average price.

The first boat with fruit from Western Australia left Fremantle on the 21st February, and the Apples were sold in London during the first week in April, realising from 10/- to 18/-, with a few Cox's as high as 30/-.

The next boat taking Apples left on the 29th February, and these brought good prices all round, realising from 13/6 to 20/-.

From the 3rd March to the 29th March nine boats left Western Australia taking Apples to the English markets and prices were moderate throughout, ranging mostly from 12/- to 15/-, with a few as low as 9/-.

During April three boats carried Apples from this State to England, and there was a distinct rise in the average price, the fruit realising mostly from 13/6 to 18/-.

While the returns for that which was taken on two boats in May showed a further substantial increase, Yates sold in London in July realising 24/-, Rokewoods 23/-, Cleos. 21/-, Dunn's 20/-, and Statesmen 18/- to 24/-.

It is only in very recent years that Apples have been shipped from Western Australia to London in May, and though Rokewoods have been sent in April for several years past, and Statesman occasionally, I do not remember Yates figuring before in our list of varieties exported to England. As a variety for sending to Java and Singapore it has long been a favourite, consignments going forward to these places as late as November: but for the English market it was looked upon as one which would arrive when English fruits were in season, and consequently bring low prices. Apparently, however, there is a good market for our late Apples in England during the months of June and early July, when the competition with American Apples which our fruit meets with in April and May no

longer obtains.

The

**Pear crop**

was much lighter this year than last, and there was a big falling off in the number of cases exported, this year's total being 7,162 cases as against 15,280 cases last year. Prices varied according to variety and condition of fruit at time of landing, some wasty consignments realising as low as 2/9 per half case, while some choice sorts in good condition went to high figures. I know of one lot of Josephines, 54 cases (¾ bushels), which brought from 28/- to 38/- per case, the grower receiving a cheque for £68/19/- net return for his fruit on railway siding.

Particulars of the number of cases, kinds of fruit, and markets to which it was forwarded are as follow:—

**Manurial Experiment.**

In last year's report I stated that the manurial test which we were carrying out in an Apple orchard to test superphosphate against bonedust as a means of supplying phosphoric acid to the soil would not yield definite results for some time, but in this I was mistaken, as both the fruit and the trees on the plot treated with super. were this year better than on the plot treated with bonedust. The knowledge gained will mean a great saving in the fruitgrowers' manure bill, for most of them are accustomed to use bonedust, believing it to be more suitable for their requirements than super.

In spite of the occasional complaints one hears as to the difficulty of making a success of fruitgrowing, the number of trees imported in addition to those grown by local nurserymen would make it appear there are still quite a number of people who have faith in the stability of the inhave faith in the stability of the industry. The import returns show that 105,676 fruit trees and seedlings were imported through Albany and Fremantle. The leading kinds were Apple trees, 25,355; Apple seedlings, 6,750; Oranges, 15,741 trees, 11,300 seedlings; Peaches, 4,229 trees, 11,100 seedlings; Plums, 1,738 trees, 5,687 seedlings.

The importations of fresh fruit were:—28,149 packages, of which 26,217 were Bananas.

**Export of Fresh Fruit from Western Australia for the Year ended 30th June, 1924.**

| Destination. | Apples. cases. | Grapes. cases. | Pears. cases. | Plums. cases. | Peaches. cases. | Apricots cases. | Nectarines. cases. | Passion Fruit. cases. | Quinces. cases. | Persimmons. cases. | Oranges. cases. | Loquats. cases. | Lemons. cases. | Total. cases. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| London . . . | 184,648 | 16,345 | 6,450 | 9½ | 5 | — | — | 2 | 7 | 19 | 7,368 | — | — | 214,853½ |
| Hull . . . . | 25,251 | — | 388 | — | — | — | — | — | — | — | 3,290 | — | — | 28,929 |
| Liverpool . . | 821 | — | — | — | — | — | — | — | — | — | — | — | — | 821 |
| Manchester . | 12,073 | — | 25 | — | — | — | — | — | — | — | — | — | — | 12,098 |
| Hong Kong . | 100 | 25 | — | — | — | — | — | — | — | — | — | — | — | 125 |
| Shanghai . . | 25 | 25 | — | — | — | — | — | — | — | — | — | — | — | 50 |
| Batavia . . . | 7,242 | 1,027 | 164 | — | — | 2 | — | — | — | — | 2,634 | — | 7 | 11,076 |
| Sourabaya . | 12,380 | 2,098 | 43 | 1½ | 3 | 10 | 2 | — | — | — | 381 | — | — | 14,918½ |
| Samarang . . | 2,588 | 876 | 53 | — | — | — | — | — | — | — | 178 | — | — | 3,695 |
| Singapore . . | 13,253 | 3,763 | 39 | 9 | 3 | — | — | — | 10 | — | 1,187 | 5 | 19 | 18,288 |
| Bombay . . . | 2,714 | — | — | — | — | — | — | — | — | — | — | — | — | 2,714 |
| Colombo . . . | 5,545 | 679 | — | — | — | — | — | — | — | — | 96½ | — | — | 6,320½ |
| Port Said . . | 2,100 | 25 | — | — | — | — | — | — | — | — | — | — | — | 2,125 |
| Durban . . . | 2,200 | — | — | — | — | — | — | — | — | — | 7 | — | — | 2,207 |
| Alexandria . | 200 | — | — | — | — | — | — | — | — | — | — | — | — | 200 |
| Calcutta . . . | 50 | — | — | — | — | — | — | — | — | — | — | — | — | 50 |
| Mauritius . . | 100 | — | — | — | — | — | — | — | — | — | 10 | — | 5 | 115 |
| Beyrouth . . | 302 | — | — | — | — | — | — | — | — | — | — | — | — | 302 |
| Total . . . | 271,592 | 24,863 | 7,162 | 20 | 11 | 12 | 2 | 2 | 17 | 19 | 15,151½ | 5 | 31 | 319,887½ |

## "APPLE WEEK" IN U.S.A.

### "A National Institution.

### Enormous Increase in Sales.

International Apple Shippers' Association has issued a report giving the results of their last "Apple Week" in the United States, thus:—

"'Apple Week' is now a national institution, and last year, by means of newspaper advertising, amusing slogans, such as 'Eve 8—1; Adam 8—1—2. Can you beat it?' or 'Baked Apples for Breakfast—Oh, Boy!' special street displays, the distribution of millions of Apples free to schools, hospitals, etc., and other forms of propaganda,the health value of Apples was driven home to every household in the country, **and the consumption per capita increased enormously and permanently.**

"'Apple Day' was started in America as long ago as 1905, and any doctor will agree that the value to a nation's health of such intense and cumulative propaganda is inestimable."

* * *

Some day, we don't know when, Australian fruitgrowers are going to get together on some such similar enterprise. What our fruit industry needs is a definite progressive policy and big vision. The greater includes the less. Many of the present problems would disappear if the industry, producers and the wholesale and retail traders, were to work in harmony on a big, sane, whole-hearted programme.

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A small boy came to school one day with dirty hands.

"Tommy," the teacher said to him, "I wish you wouldn't come to school with such dirty hands. What would you say if I came to school with dust and ink all over my fingers?"

"I wouldn't say anything," answered the child, promptly. "I'd be too polite."

## "FRUIT WORLD" APPRECIATED.

### Imperial Fruit Show Committee Sends Letter of Thanks.

Mr. J. F. Tamblyn (Secretary of the Imperial Fruit Show Committee, Birmingham) writes as follows:—"The committee have asked me to express their very sincere thanks for the excellent service you have rendered the Show by distributing schedules and generally drawing the attention of Australian growers to the classes for Oranges in which they were able to compete. They also asked me to add that they hope, in the event of the Show taking place next year, you will be prepared to help us again in the same way."

[We shall be delighted to render this service.—Ed. "F.W."]

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Guard within yourself the treasure Kindness. Know how to give without hesitation, how to lose without regret, how to acquire without meanness.—George Sand.

# Cold Storage In Australasia

## THE DEVELOPMENT OF "SCALD" IN COLD STORED APPLES.

### American Investigation.

(By J. H. Lang, Harcourt, Vic.)

The subject of "scald" in cold stored Apples is of such importance to all connected with cold storage in Australia that the following article, carefully compiled by Mr. J. H. Lang, of Harcourt, Vic., will be perused with interest and appreciation. It is a valuable contribution to this much discussed topic. Mr. Lang writes:—

CORRESPONDENCE has been received by me from Mr. Chas. Brooks, Senior Pathologist of the U.S.A. Department of Agriculture. Mr. Brooks states:—

"We have not found the oiled wrappers a complete control in all cases; in fact, with our Black Twig variety we have had several almost complete failures, although there are many other cases where the control has been entirely satisfactory. We have made but very few tests of Jonathan, because with us it is largely an early winter variety, and seldom makes any trouble on the market because of developing scald."

"The greatest trouble with Jonathan here is the fact that it is quite likely to become soft and mealy on the inside, a trouble which we have spoken of as internal breakdown. It also develops considerable Soft Scald. The Soft Scald is quite distinct from the ordinary scald; it has very clear cut margins, and the tissue beneath is completely collapsed, while with the ordinary scald there is usually a great deal of the stem tissue that turns brown without any softening whatever of the flesh beneath."

Several Bulletins issued by the Department were also forwarded giving details of the investigations since 1917. To show the

**Loss Caused by Scald,**

it is stated that from the middle of December till the close of the Apple season, it is common in many markets to find Apples offered at 10 to 40 per cent. discount on account of scald.

When scald begins to appear in commercial storage lots, the dealer knows that the fruit cannot safely be held for more favourable prices, and it is usually moved to market and sold for what it will bring. These Apples often become badly scalded on the hands of the consumer, not only causing him a direct loss, but also preventing him from continuing as a free buyer of Apples.

Among the factors bearing on the subject, the following may be mentioned.

**Maturity of the Fruit.**

The results varied in the different tests, but in general the fruit that was well matured but not over-ripe developed less than half as much scald as that which was picked green. Colour and maturing are influenced by the weather conditions, the pruning, the soil, the fertiliser and the general orchard management as well as by the time of picking.

Good exposure to sunlight produces high colour, and makes the Apples more resistant to scald. Heavy applications of nitrogenous fertilisers makes the Apples more susceptible to the disease. Regarding potash, no data is available, but if this fertiliser tends to increase colour, as it is generally supposed that it does, it undoubtedly would have an effect upon the disease.

**Soil Moisture.**

The Apples from heavily irrigated trees developed about three times as much scald after removal from storage as those from lightly irrigated trees. It is impossible under non-irrigated conditions to control the amount of water supplied to the soil, but it is worth while to know that Apples that have been forced, either by heavy rains or heavy irrigation, have thereby become more susceptible to scald.

**Temperature.**

Low temperature is the best means known for prolonging the life of the Apple, and it is also the most important agency in delaying the development of scald. An increase of 9 deg. in the storage temperature has resulted in two or three times as much scald upon removal from storage. The effect of low temperature is that of delaying scald rather than preventing it. The disease has developed as seriously at 32 deg. at the end of 16 weeks as it did at 41 deg. at the end of 12 weeks. Apples should be delivered promptly at the store, and brought to final storage temperatures with the least possible delay.

**Delayed Storage.**

This has increased or decreased the amount of scald, depending upon the aeration the Apples received during the delay. In one experiment Rome Beauty, with immediate storage, developed 12 per cent. of scald at the end of six months, whereas those delayed nine days in the open in the shade at a temperature of 42 deg. to 59 deg. F., remained free. Those delayed nine days in a closed room at 45 deg. to 55 deg. F. developed 7 per cent.

In delayed storage the freest possible exposure to the air is essential, and it should be borne in mind that delay in storage is favourable to the development of rots, and shortens the life of the Apple.

**Aeration in the Storage Plant.**

Apples that are in the aisles or near the doors of the cold storage rooms scald less than those located in the middle of the stack.

Beneficial results have been obtained by removing the Apples to the outside air for a period of 6 to 24 hours at the end of six and eleven weeks' storage. The storage room stood at 32 deg., while the outside air was 46 deg. and 48 deg.

**Humidity.**

Apples scald less when dry than when held under condition of excessive humidity, but it has been found possible to prevent the disease with good aeration when the air was practically saturated with moisture. It seems probable that the value of aeration in scald control is at least partly due to the removal of odorous products thrown off by the Apple.

**Oiled Wrappers.**

This is the most efficient and practicable method of scald control that has been found up to the present. The oiled wrappers hold the disease in check to a remarkable degree, and to an extent that materially affects the market value of the fruit. A thorough commercial test was made on the 1922 crop from the Pacific Northwest. A large number of car-load shipments were made, and the returns from the fruit in oiled wrappers compared favourably with those from fruit in unoiled wrappers. The contrast in prices increased with the advance in the season, and the results were so satisfactory that a great impetus was given to the use of oiled wrappers.

The scald control is largely in the nature of removing the tendency to scald rather than merely delaying the development of the disease. The Black Twig variety is the most difficult for scald control, enough scald often appearing by the middle of February to affect their selling price.

Wrappers should contain at least 15 per cent. of their weight in oil. The addition of oiled blotter and paper material, cut in narrow strips and scattered between the Apples reduced scald to about one-third the amount found on untreated fruit, but fell far short of the results obtained with the oiled wrapper. The direct application of oils and waxes to the Apples cannot at present be recommended for general use.

**Critical Periods in Scald Control.**

The life of stored Apples may be divided into four periods.

First.—From the picking of the fruit to the end of the sixth or eighth week. During this period it is possible to overcome the tendencies to the disease by wrapping the Apples in oiled paper or by giving them a very thorough airing.

Second.—Five to eight weeks following the first period. Preventive measures are of little or no avail. If the Apples be consumed before the end of this second period the scald problem is avoided.

Third.—Covers the remainder of the time the fruit is in storage. The Apples now become latently or potentially scalded, yet they remain green and appear normal if not exposed to warm air.

Fourth.—After removal from storage. The affected skin turns brown and completes its death process.

**Soft Scald.**

This is particularly common in Jonathan and Rome Beauty. The location of the disease on the Apple appears to be determined by the points of contact with the package and with other Apples.

Soft scald can be produced by enclosing Apples for a few days in an air-tight jar at living room temperature. In commercial practice it is greatly increased by delayed storage. In 1919 some Jonathans were packed in barrels the day they were picked. Some were stored the same day at 32 deg., the remainder were held in a shed at about 75 deg. for one week, and then placed in the same storage room; on January 15th, 1920, the latter had developed from 28 to 52 per cent. of soft scald.

Other phases that were investigated include:—

**Oxygen.**—Though the Apple is a breathing organism, the amount of oxygen in the air of the chamber has no relation to the amount of scald that may develop.

**Ozone.**—In a commercial cold storage experiment a 12 cyl. ozone machine was used. Apples were stored within a few feet of the machine, and others held as a control in another storage room.

Both lots scalded badly, and there was no contrast.

**Carbon Dioxide.**—Apples held from two to six days in an atmosphere composed entirely of carbon dioxide prior to cold storage, developed much less scald than those not so treated. It does not follow, however, that a high percentage of this gas in the storage air is to be looked upon with favour.

**Application to Australian Conditions.**

It is to be regretted that the Apples principally used in these experiments, viz., Grimes Golden, York Imperial, Stayman's Winesap, Arkansas (Mammoth Black Twig), Yellow Newtown, Rhode Island, Greening White Pearmain, Rome Beauty are not, with the exception of Rome Beauty, the varieties that are commercially grown in Australia.

It will be seen, however, that any measures taken for the prevention of scald must begin in the orchard. The treatment the Apple receives during its growth and pre-storage has as great a bearing on its keeping qualities as the conditions prevailing in cold storage.

Much still remains to be learnt of this and other storage diseases, and it is only by the closest co-ordination of the scientist and the growers, not only of this, but of other countries, that the best results can be attained.

## Answers to Correspondents.

**Peas for a Cover Crop.**—A reader at Somerville, Vic., asks the following question:—How often is it advisable to grow Peas as a cover crop, and at the same time ensure a good keeping quality in cool store of one's fruit?

Answer (by J. M. Ward, Superintendent of Horticulture).—

The answer to this question depends on the nature of the soil. On poor land deficient in nitrogen and humus, a cover crop could be grown for several years in succession, without endangering the keeping quality of the fruit.

When the land is moderately rich, care must be taken not to overdo the application of nitrogenous manures. The growth of the trees must be the guide. An excess of nitrogen, other conditions being favourable, produces a rank growth, which, of course, affects the keeping quality of the fruit.

There are other factors, however, such as drainage, rainfall, and the chemical constituents of soil other than nitrogen, which affects the fruit and its keeping quality.

Answer (by J. F. Moody, Pakenham).—How often a cover crop should be sown depends entirely on the quality of the soil and how long it has been under cultivation. We find here that the older plantation (now 40 years old) requires a green crop for humus every year to keep the soil in good heart and condition. In the balance of the orchard the soil varies, some portions requiring it every other year, while in other parts, every third year is sufficient. In the lighter soils of Somerville, I would not hesitate to sow Peas every year.

Answer (by J. H. Lang, Harcourt).—If the soil is in good heart, every second or third year should be sufficient for green manuring. Should the soil be exhausted, and require building up, I would crop each year for, say, three years. I don't think there is much danger of getting an excess of nitrogen in the soil by green manuring, and so reduce keeping qualities of fruit by causing it to become overgrown and soft. The growth of the Peas depends on a well balanced soil content, the bacteria that supplies the nitrogen is regulated by the growth of the Pea. In addition to green manuring, super. and potash should be supplied, the former will stimulate the growth of the Peas, and it is believed by some in this district that potash improves the keeping qualities of the fruit in store.

**Spraying for Aphis.**—Our Somerville friend also asks:—(1) What strength for winter dressing on Apples and Pears is required of bluestone and soda? (2) What dressing for winter strength of blue-stone only? (3) Can either or both be used with oil for aphis, and what quantities of each?

Answer (by J. M. Ward, Superintendent of Horticulture, Vic.):—

(1) The standard strength of the Copper Soda or Burgundy Mixture is, 12 lbs. bluestone, 16 lbs. fresh lime, 80 galls. water.

(2) Bluestone solution for winter use only, on Apples and Pears is used at a strength of 5 lbs. of bluestone to 80 gall. water.

For Peaches not more than 3 lbs. of bluestone should be used to 80 gall. of water.

(3) Petroleum oils cannot be combined with either the bluestone solution or Burgundy Mixture. A petroleum oil emulsion can be made with bluestone and lime, and this will mix with Bordeaux Mixture. It is necessary to break up the oil with a 3 per cent. bluestone solution and milk of lime, using the same quantity of each of the latter as the oil to be emulsified.

The use of copper soda or bluestone solution is not recommended for winter use for Apples and Pears. In the first place, these preparations are very easily washed off by rain. The object of winter spraying is to destroy resting or over wintered spores of the Venturia fungus on the tree. This can be accomplished by spraying when approximately 10 per cent. of the blooms have expanded, and a spray at this time will also destroy germinating spores, which may have wintered in the fallen leaves.

Two more sprayings are required in wet seasons. It goes without saying that the destruction of infected fallen leaves is very important. The only practicable method is the ploughing under of the leaves in early spring, and this work must be carefully done.

The lime sulphur wash is a dual purpose spray, and is preferred as a winter spray to bluestone solution or copper soda. However, the oil spray is more effective for Woolly Aphis owing to its greater penetration of crevices, etc.

If oil emulsion be combined with Bordeaux Mixture the standard strength of both mixtures should be used. To 80 galls. use 3 galls, of red oil (not miscible oil) or 4 galls. of crude petroleum for treating Woolly Aphis.

**Answer** (by J. F. Moody, Pakenham).—(1) I prefer to use 6-4-40 Bordeaux to Bluestone and Soda, and find it more effective. (2) As I have had no experience with Bluestone only, I am not in a position to advise. (3) Both can be used with oil, ordinary winter strength, but I have found the best treatment for aphis on Apples is 1 in 15 Lime Sulphur, with ¾ pint of Black Leaf 40 to 80 gallons, applied at greening stage.

**Answer** (by R. Mair, Tyabb).—(1) The strength of Bluestone and Soda generally used is washing soda, 8 lbs., bluestone, 6 lbs., to 50 gallons of water. Dissolve each separately. In my opinion, spraying in the winter does very little good. The time to use it is in the spring, when the buds are bursting. I do not use it myself, however, as I prefer Bordeaux Mixture—6 lbs. bluestone, 4 lbs. lime, 50 gallons water. Some varieties of Apples could do with 80 to 100 gallons of water. (2) 6 ozs. is used to 50 gallons of water, but I do not recommend it as I consider raw bluestone is detrimental to the trees. (3) Some people claim to be able to mix it. I have tried, but with very indifferent success. I prefer to use separately.

## FRUIT CASES.

### Softwood v. Hardwood.

To the Editor, "Fruit World."

Sir,—In reference to your news item in the "Fruit World" of last issue, on page 22, **Softwood v. Hardwood.**

Knowing that it is your desire to give the fruitgrowers of Australia the very best information, and while I appreciate same, kindly allow me space in your valuable paper on the subject of fruit cases.

**Re the Hardwood case.**—I am quite safe in saying that 90 per cent. of the growers to-day are using the hardwood case. Given the ordinary care they will not warp or stain, and the mountain ash is a white case of good appearance.

The Victorian Railways Commissioners circularised the various growers' associations, after last season, recommending them to use the hardwood for interstate trade. Mr. D. G. Wills, the Victorian fruitgrowers' representative, has also recommended the growers to use the hardwood case in preference to the softwood, for the interstate trade. He says the consignments arrive at Darling Harbor better in the hardwood case.

**Re the Importation of Baltic Timber in Shooks.**—We must not get away from the fact that these cases, apart from being dearer, are made by foreign people. They do not eat our fresh fruit, and probably none of the canned. If some growers want imported softwood, they should buy spruce from Canada, where we have preferential trade. This timber is imported in the log, and manufactured by our own people. Spruce holds the nails better than Baltic.

At the present time, softwood cases are 3d. dearer than hardwood, so that even if the railways did change their ideas, and give 44 cases to the ton with softwood, viz., 1d. per case saving, the grower using the hardwood case will still have a balance of 2d. per case in favour of the hardwood. On the railway statistics of weighing, they found the hardwood lighter than the softwood.

The fruitgrowers have had a hard fight to get a flat rate in the transportation of fruit, and the majority of growers in the Goulburn Valley are not in favour of getting away from the flat rate, whether the fruit is in hardwood or softwood cases. The one rate for both, irrespective of timber used.

**Re the Allowance for Shrinkage in the Hardwood Case.**—It is not necessary for fruitgrowers these days to buy hardwood cases over-size, to allow for shrinkage. The Goulburn Valley fruitgrowers are very fortunate in having case factories at Shepparton, Merrigum and Kyabram, which confine their trade to hardwood cases. These factories draw from their stock, cases shrunk down to the actual bushel, thus the growers are not losing by an over-size case at all. Of course, when growers buy their shooks direct from the mills down country, they take the risk of using an over-size case, also in using under-size ones, but growers are now released from this, with the factories at their door.

The average grower uses about 6,000 cases, so that the man who uses hardwood cases has a saving of 3d. per case, or on 6,000 cases, £75 per year. Most growers have realised the saving, and for the benefit of those who have not, I am pleased to give you this information.—Yours faithfully,

S. YOULDEN,
Grower, Merrigum.

January, 1925.

## MY CREED.

I would be true, for there are those who trust me:
I would be pure, for there are those who care:
I would be strong, for there is much to suffer:
I would be brave, for there is much to dare.
I would be friend of all—the poor, the friendless:
I would be giving, and forget the gift:
I would be humble, for I know my weakness:
I would look up, and laugh, and love, and live.

"Great Thoughts."—Howard Arnold Walter.

# Queensland.

### DISTRICT NEWS AND NOTES

THE 1925 season in this State is a record for all kinds of fruit. It is many years since such a large crop of deciduous fruits has been harvested.

The Stanthorpe district has hitherto been recognised as the only deciduous area in Queensland, but unfortunately for Stanthorpe growers many small centres close handy to Brisbane are competing with them on the markets with a very good crop of Grapes, Plums, and Peaches.

On top of this the Banana growers are faced with a 25 per cent. increased production.

The Pineapple crop is very large, plants in all areas are showing splendid fruits.

The citrus crop will be about the same as last season. The "Bronze Orange Bug" spoiled, to some extent, what would have been a bumper crop.

To market the crop of fruit is going to take some deep thinking, "Eat More Fruit" campaigns will have to be instituted in every part of Australia to aid growers to dispose of their abundant crops.

**Fruitgrowers' Levys.**

The Pineapple Growers have agreed to allow a levy of one penny per case to be taken by the Committee of Direction of Fruit Marketing for the purpose of creating a fund to carry out necessary work in connection with the marketing of the 1925 crop. The cannery price for Pineapples this season will be 3/9, cases returned, against 4/- last year, when the Federal bounty was in force.

The Stanthorpe growers have also agreed by ballot to a levy of tenpence per ton on all fruit and vegetables leaving Stanthorpe up to October 31st, 1927. This levy is for the purpose of retaining the services of Mr. A. Perkins, Research Fellow, Queensland University, in Stanthorpe to study the habits, etc., of the fruit fly (Dacus Tryoni), which has been the cause of so much loss to growers.

The growers of this district have been paying voluntarily £300 per annum, during the last two years for this purpose. Evidently many of them got tired of continually paying out, therefore a ballot was necessary to get further support.

The ballot resulted as follows:—Number of growers, approx. 900. For the levy, 251; against, 196. Majority, 55.

Some growers in Stanthorpe feel the work of combating the fruit fly is being carried too far. Already the Department of Agriculture has Mr. H. Jarvis, Entomologist, permanently stationed in the area, and in addition a large staff of inspectors combing the district daily. Many fruitgrowers

will feel the pinch of the levy, especially with the low prices now obtaining.

All agree the work is important and essential, but why saddle the orchardists with the expense, especially when non-commercial and backyard orchards are allowed to flourish and exist in and around the district breeding the fly, and owners not paying anything towards its extermination. Fruitgrowers have enough to put up with— Bad seasons, frost, hail, and glutted markets. WHY THE LEVY?

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### Committee of Direction.

#### Tomato Troubles.

The Brisbane metropolitan Tomato growers have resolved that the Committee of Direction are not to handle their crop. It appears the Stanthorpe growers, to the number of one thousand, asked the Committee to limitate the agents handling Tomatoes, but the Brisbane Fruit Agents' Association refused to agree to this move. The Committee was then faced with the problem of having one floor for Tomatoes similar to that for Bananas, and Mr. A. E. Wool, ex-fruit agent, recently returned from America, was put in charge as salesman.

Agents are to be prosecuted for contravening the Queensland Fruit Marketing Act under which the C.O.D. have taken over the sole right to sell Tomatoes wholesale or on commission. The Court cases will be watched with interest all over Australia, as this is a test case to test the legality of the Act.

#### Banana Friction Over.

The friction between the Banana merchants and the Committee has been settled, and the one floor for this fruit is still being carried on, and proceedings are progressing smoothly. The merchants have agreed to purchase their supplies as per usual from Mr. Chester.

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### Absence of Codlin Moth.

#### Cleaning Up of Packing Sheds Responsible.

Last year an amendment was added to the Queensland Diseases in Plants Act making it compulsory to have all fruit out of the Stanthorpe fruit district by the 7th of April to enable the entomologists and chief inspector to gather information as to whether the fruit fly winters over in the district, or whether it migrates from other centres. It was also made compulsory to spray and clean up all packing sheds, empty cases, and other places likely to harbour the larvae of the fly. The cleaning up has done good work. A few fly stung fruits are to be found, but codlin moth has not been seen so far. The codlin moth last year was responsible for 25 per cent. damage in the district. Growers will do the cleaning voluntarily this season.

### Palmwoods.

#### Cool Storage Experiment with Oranges.

At the last monthly meeting of the Palmwoods Fruitgrowers' Association a sample of Oranges was displayed that had been in cool storage for three months. The fruit was in very fair condition, the flavour being better than anticipated. The meeting resolved to carry out further cool storage experiments during the coming season, and have asked for Mr. Rowlands' assistance in the matter. With efficient cool storage for Oranges, the citrus growers could command a much more stabilised market, and do away with the glut that occurs during the winter months of each year.

#### Amiens Soldier Settlement.

Amiens is a soldier settlement, situated on the Cottonvale line, South Queensland. A good stamp of settler, with fairly good soil, and growing good commercial varieties, is out to show the fruitgrowing fraternity that they know the road to success in fruitgrowing.

They have started an up-to-date packing shed, and have passed a resolution unanimously to market only "A Grade" fruit. A big undertaking, but still the diggers are determined to carry out their resolution. All Apples are to be wrapped and packed on the method now being taught by the Department of Agriculture. No blemished fruit to be sent to market even though the regulations admit it.

The Bapaume and Pozieres settlements already have packing sheds, but only put Tomatoes through them. They have been successful by only marketing "A Grade" fruit.

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### Stanthorpe District.

#### Damage by Hail Storm.

Growers in the Stanthorpe District received a gift on New Years' Day by the visitation of a disastrous hail storm. The prospects were excellent, and growers were looking forward to a record season, but for some of them the prospects were entirely altered on New Years' Day. Forty-six orchards were severely damaged, and others will lose about 10 per cent. of their crop. Most damage was done in the Eukey, Ballandean, Glen Aplin, Wyberba and the Summit districts.

Fortunately the soldier settlers from Amiens to Pozieres were untouched.

The Government is offering assistance in the way of fertiliser and seed, but many growers refuse the assistonce offered, owing to the conditions under which it is given.

Some system of hail insurance is needed for fruitgrowers.

Fruitgrowing is a hazardous occupation, and the A.W.U. now want to make an award for orchard hands, which is most unreasonable.

### PEAR VARIETIES.

#### Some Interesting Comments.

I have tested all the popular varieties of the Pear, and have gradually eliminated all except Clapp's Favorite for early, Williams for summer, Seckel and Bosc for early autumn, Dana-Hovey for late autumn, and Lawrence for winter.

These are the kinds that best please my own taste, but there are scores of others, delicious Pears, that may better suit the fancy of others (writes Dr. W. G. Kendell, in "Horticulture," U.S.A.).

Clapp's Favorite is a large, beautiful Pear, highly colored, where exposed to the sunlight, but must be picked very early, long before the tyro would consider the proper time, as it is worthless if allowed to become at all mellow on the tree. Gathered at the right time, kept in the right place, and eaten at the right time it is luscious.

The Williams is undoubtedly the most popular of all Pears, and I doubt if it is ever ousted from that proud position. Large, handsome, juicy, aromatic, its vinous flavor is relished by most people, and even if picked when only partly grown, it will ripen into a delicious fruit. It originated in England in 1770 and was brought to Massachusetts by Enoch Bartlett, after whom it was named, although he was not its propagator.

The story of the Seckel is almost a romance. Originating in a hedge in Pennsylvania, it has attained the position of the standard by which all other Pears are judged for quality. When sent to Europe for comparison with all the best varieties there grown, it was pronounced to excel in flavor all other autumn varieties. The fruit is small, but can be made larger than is usually seen if the soil about the tree is well fertilised and cultivated.

Magnificent best describes the Bosc, and it cannot be given too high praise. It is large, juicy, rich in flavor, distinctive in shape, ornamental in growing.

Dana-Hovey is the one variety that nearest approaches the Seckel for high flavor, and is of such quality that I am surprised it is not more generally known. It is the Pear known to the fancy market trade as "the Thanksgiving Pear," because of being at its best at that season. It sells at a fancy price, and is one of the three or four varieties that I would set out if I were raising Pears as a commercial proposition. Although about the same size as the Seckel, it can be made, like all other fruit to grow large by proper thinning out, and has a rich, aromatic flavour, that must be tasted to be appreciated.

The Lawrence can easily be kept until the holidays under ordinary conditions, and much later into the winter in a cold place, and then becomes a Bonne Bouche with exquisite, aromatic flavor and aroma.

# Re-grafting Apple Trees

## The Fungus Disease Polystictus Versicolor is often Troublesome

## Some Helpful Suggestions

(*By P. H. Thomas, Tasmanian Government Fruit Expert*)

DURING the past few years, efforts have been made in all States of the Commonwealth to better the conditions of the fruit industry by improving the general methods of marketing the different products. One of the principal measures that is now being adopted with a view to attaining this objective is the fixation of standards for marketing the fruits in their fresh or "green" state.

A great handicap to putting into effect an effective scheme of standardisation, especially at the community packing sheds, is the great number of varieties that different areas of orchard are producing, many of them being distinctly inferior from a marketing viewpoint.

Certain orchardists are also finding that their choice of kinds have not been suitable to their locality, in some cases being almost valueless from a commercial standpoint. In such cases, the grower is faced with the adoption of one of two methods in order to rectify the disability: He must decide whether to replant or rework the particular areas to a more desirable kind.

The general choice under such circumstances has been to "graft" or "bud" over the trees, if they are of healthy and vigorous growth, with more popular or suitable varieties. By the foregoing remarks, a realisation of the importance an efficient

**method of re-working**

is to the fruit industry will at once be evident. Unfortunately, during the past few years, the operation has proved a hazardous undertaking, by reason of a troublesome condition that has been generally experienced, and which has often resulted in the death of the trees.

An examination of the affected parts has frequently revealed the presence of the Polystictus versicolor fungus, the condition and injury being ascribed to this disease. It is upon this point that I wish to offer a few suggestions which have been influenced by my investigations of recent years since the trouble was first brought to my notice.

In the first place, it will be necessary to give a description of the condition of affected trees. The first sign of injury is generally evident at the point of union between tree and scion, and is characterised by a softening and decay of the bark adjacent to these parts. This extends to the "heart wood" destroying the "cambium," and spreading down the branch to the main trunk.

In the first stages of infection, the bark becomes quite soft and spongy, the outer portions generally cracking and curling as the affected parts become dry. The condition is more common in development in the first two or three years after the trees



*Branch of Re-grafted Apple Tree attacked with Polystictus versicolor, showing first stage of injury.*

have been grafted or budded, but is not entirely confined to this period. Cases have recently come under notice where trees have been re-worked, and have remained free for a number of years, making good growth and development, but have ultimately become affected.

Although an examination of the affected portions of the tree shows the presence of a fungus organism, from which the P. versicolor fruits can be produced, it is rather questionable whether the fungus is the primary cause of the injury. P. versicolor will develop on almost any species of dead or decaying timber, and is more of the species of fungus that belong to the saphrophytic order.

Many practical men are of the opinion that the "die back" which has been described is caused by a physiological disturbance that is created by

**the violent treatment**

that the tree receives when cut hard back for grafting, especially as the coating of the wounds with fungicidal preparations in order to try and prevent the supposed infection by the fungus spores has often proved ineffectual.

This is supported by the experiences of growers who have varied their treatment of trees that are to be reworked by not reducing the limbs to the extent that has been commonly practised. In such cases the injury is very seldom found whilst in trees that have been cut almost down to the "crotch," the die back is far more general.

Other growers affirm that in cases where two or three limbs are left, their full length not being reduced and re-worked at the same time as the others, no injury has been experienced. There is opportunity for a complete investigation of this matter in order to reach a definite decision on the points raised. The majority of growers are faced with the

**necessity of re-working**

some of their varieties, and numbers that have attempted to carry this out have lost a lot of their trees from this cause in the process.

From the little data available, and the general experience of growers who have experimented with different methods of treatment, it is patent that hard cutting back of fruit trees for purposes of re-working increases the chance of injury, and that it is advisable not to reduce all the main limbs at once, but to leave one or two to give a better balance between the head and roots during the development of the scions.

The covering of wounds with a fungicidal preparation such as Bordeaux paste is advisable, as such should minimise the danger of infection from fungi, but this cannot be taken as a sure preventative from the injury.

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**Ripening Fruit.**—Winter Apples and other fruit which are slow to ripen may be made ready for the table in advance of the usual date by the simple process of ripening them artificially (writes "Horticulture," U.S.A.). When fruit is ripened on the tree, it is warm in the daytime and cool at night, the alternate heat and coolness having a tendency to make it mellow. To imitate nature's process, the fruit may be put in an ice box one day, and in a warm room the next. When this plan is followed for a week, the fruit becomes ready to eat out of hand.

# TASMANIA.

Crop Reports : Fruit Standards
Local and Overseas Maketing : News and Notes

## Fruit Crops.

**Apples and Pears.**—The warm, dry weather that has been experienced during the past few weeks has benefited the development of these fruits, besides assisting to check the growth of fungus disease.

The crop on the whole will be a medium one. In the Huon, Channel, Derwent and Bagdad Valleys some very fair yields are in evidence. Northern, North-East and North-West districts have suffered severely this season, and crops in these centres are generally light.

From a close investigation of the various districts, and comparison with normal production, an estimate of the crops is as follows:—

**Apples,**—60 per cent. crop, approx. 2,100,000 bushels.

**Pears.**—45 per cent. crop, approx. 140,000 bushels.

**Apricots.**—The yield in this fruit will be from medium to good. The fruits are forming well, and generally up to size. In some districts rain will be welcomed, although at this period an excess of moisture following a dry period will cause a falling of fruit.

**Small Fruits.**—Harvesting is now in full swing. Gooseberries are all gathered, and Black Currants, Raspberries and Loganberries are receiving the attention of growers.

The crops in most districts are satisfactory, especially where shelter is provided. Exposed situations have suffered from the influence of the cold winds and frost in the early stages of growth. A good rain would considerably improve the prospects of the later ripening berries.

**Factory Prices.**—The following are the factory prices that are ruling to date:—

| | Tubs. | Punnets. | Cases. |
|---|---|---|---|
| | lb. | lb. | lb. |
| Raspberries | 4d. | 5d. | — |
| Loganberries | 3½d. | 4½d. | — |
| Black Currants | 3d. | — | 3½d.stalks off |
| Red Currants | 2d. | — | 2½d. „ „ |

**Fruit Carriage Investigation.**—Mr. A. J. Smith, who visited Australia in 1923, together with the other Cambridge scientists, who were investigating the conditions operating in the carriage of fruit to the United Kingdom, has arrived in Tasmania in connection with a further investigation into the development of bitter pit amongst fruit consignments. Arrangements are being made for small consignments of susceptible varieties to be forwarded at intervals from different centres. The fruits selected will be grown under varying conditions of soil and location. These will be checked and examined upon reaching London by Mr. Smith's fellow scientists. Some interesting and instructive data should be available from the experiments, which should be a guide to future shipments.

**British Empire Exhibition.**—Now that it has been definitely settled that the Exhibition will be continued this year, it is opportune for fruitgrowers to insist that a different scheme for selling fresh fruits in the Exhibition grounds be adopted.

If the various Australian Fruit Co-operative Associations would press their claims for the supply and sale of fresh fruits at the exhibition, a very big improvement could be effected over the system which was in operation last season, in which a private firm bought the fruit in the open market and retailed it to the visitors.

There is a big opportunity here for Australian producers to take the matter in hand and ensure that the full advertising value is obtained in the class of fruits retailed. Incidentally the profits in such a scheme would return to the fruitgrower where they rightfully belong.

**Cold Storage at Port Huon.**—During the past months a movement has been directed at Port Huon toward the establishment of a cold store to serve this important fruit district.

At the commencement of negotiations, it was decided to approach the State Development Board with the object of financing the venture under the scheme advanced by the Imperial Government for developmental works in Australia.

Owing to the unsatisfactory delay in deciding upon this matter, an offer has been received from a private firm in Launceston (Messrs. Bender & Co.) to build the store, giving fruitgrowers in the district a chance to purchase shares in the company. It will be necessary that arrangements will soon be finalised if the store is to operate this season.

**Organisation of Fruit Markets.**—For some years fruitgrowers have been endeavouring to bring about a fund which will be at the service of the industry in respect to the problems and difficulties which are encountered in the marketing and production of the crops.

At the recent fruitgrowers' conferences, held at Launceston and Hobart, the matter was given a great deal of consideration, eventually resolutions being unanimously passed empowering the State Fruit Advisory Board to inaugurate a levy which would be spread over the whole industry.

The chief uses to which the fund will be put is in providing Tasmanian representation on matters affecting the industry, organisation, and the board's expenses of operation.

The levies, which are voluntary, have been arranged as follows:—

On all fresh fruit shipped out of Tasmania, 1-16d. per bushel.

Raspberries, Currants and Loganberries, ¼d. per cwt.

Strawberries, ½d. per cwt.

Gooseberries, Plums, Apricots, 1-16d. per bushel.

**Shipping Strike.** — Tasmania is again suffering from the evil effects of a shipping strike. During the past few years this has occurred regularly at the period when the most harmful results are occasioned.

Fruitgrowers are watching events very closely, as should the action be extended to the overseas boats, a very serious position will arise. The policy of those who are directing the maritime unions seems to be concentrated toward eliminating the primary producer. Tasmanian fruitgrowers have received more than their share of misfortune during the last few seasons, and when the possibility of losing the whole results of a year's labour through communications being severed by the operation of a strike is added to these, there will be very few who will continue in the industry.

**Fruit Standards.**—The State Standardisation Board will meet during the month to fix the standards for fruit exported to interstate markets. Very little has been heard from the Customs Department in respect to the proposed alterations in the overseas export grades, which were submitted to the various State Boards at the end of last year.

Whilst the desire is for uniformity in both interstate and export standards, the Tasmanian growers are unanimous that they will not stand another change in the designations of grade, and if this is imposed, there will be active opposition in this State.

## PROGRESS AT HULL.

We acknowledge receipt of the British Empire Exhibition Supplement of the "Hull Daily Mail" which contains very interesting information regarding the city and county of Hull. The article relating to the fruit section is particularly appreciated, giving interesting details relative to imports and the facilities for receiving, handling and despatching fruit cargoes. Last year 7,500,000 packages of fruit and vegetables were discharged from overseas, landed, sold and entrained at this port.

# The Sugar Industry.

## Federal Government to Continue the Embargo for 3 Years.

### Details of Scheme.

Fruitgrowers Express Bitter Disappointment.

IN the Federal Parliament on December 23, the Prime Minister made the long awaited announcement regarding the "sugar" policy of the Government.

The embargo is to be continued for three years on defined terms, and sundry concessions have been made to the fruit and other industries.

Great surprise has been expressed at the proposed renewal of the embargo, the Prime Minister having previously made the definite announcement that after June next the embargo would not be reimposed.

Details are as follows,—

**A. Refined Sugar.**

1. Retail price, 4½d. lb.; £42 per ton. Same as at present.

2. Retailers' and housewives' price for not less than ½-ton lots, for net cash, 4d. per lb., £37/6/8 per ton; 4/8 reduction on present price.

3. Net wholesale and manufacturing price for products other than fruit for home consumption, for net cash, £36/11/9 per ton. Decrease of 8/3 for manufacturers of beer, biscuits, cakes, confectionery, cordials, condiments, jelly crystals, tanners, druggists, &c.

4. Manufacturing price for processing fruit products for home consumption for net cash, 3¼d. per lb., £30/6/8 per ton. New advantage of £5/6/4, in addition to special concession of £1/7/- already given; total £6/13/4.

**B. Mill-White Sugar (equal to Java whites).**

1. Retail price, 4d. per lb., £37/6/8 per ton; new advantage.

2. Retailers' and housewives' price for not less than ½-ton lots for net cash for definite orders at reasonable notice, about 3¼d. per lb., £33/3/9 per ton; new advantage.

3. Wholesale and manufacturing price for home consumption for definite orders at reasonable notice for net cash, £32/10/6 per ton; new advantage.

**C. Stock Rebate Fruit Products.**

Manufacturers of fruit products to be granted a rebate on the sugar contents of their stocks held when the price of sugar is reduced to them to £30/6/8, provided satisfactory proof is given that the selling prices have been correspondingly reduced

**D. Export Prices.**

Sugar for all exported manufacturers to be supplied at the Australian in bond equivalent of the world's parity, calculated and determined in Melbourne by an export sugar committee composed of (a) one representative of Commonwealth Government; (b) one representative of sugar industry; (c) one representative of manufacturing exporters. The export price will vary as world's parity moves up or down.

**E. Uniform Australian Prices.**

All sugar to be supplied at the same price in the main distributing centres in each State (means Sydney, Melbourne, Brisbane, Adelaide, Perth, Hobart, and Launceston). Same principle as at present, but Perth substituted for Fremantle.

**F. Export Losses.**

Sugar industry to be responsible for any loss arising from surplus sugar exports.

In making the announcement the Prime Minister spoke at length to justify his change of policy. Summarised, the arguments were that:—

(1) The progress of the sugar industry in Queensland and Northern N.S.W. was vital to the White Australia Policy.

(2) The imposition of a customs duty could not properly protect against importation of foreign sugar if prices were artificially lowered by speculators (the idea of a Customs duty on a sliding scale was considered but rejected as impracticable).

(3) The re-imposition of the embargo was therefore decided on for a further period of three years from August 1925.

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## SUGAR EMBARGO CONDEMNED.

### Australian Jam Manufacturers Pass Emphatic Resolutions.

### Prime Minister's Definite Promise Violated.

A conference of the jam manufacturers of Australia was held at Melbourne on January 23, when the following resolutions were unanimously adopted:—

(1) That this Conference records its emphatic condemnation of the proposal of the Commonwealth Government to renew the prohibition against the importation of sugar for a further term of three years.

(2) That this Conference is of opinion that any continuance of the sugar prohibition would be a distinct violation of the definite promise given by the Prime Minister to Parliament and to the people of Australia.

(3) That the jam manufacturers of Australia have no objection to the sugar industry receiving a generous measure of protection by means of Customs duties, but they believe that, if a larger measure of protection than the pre-war duty of £6 per ton be required by sugar producers, such additional protection should be afforded them in the form of a direct bounty from the consolidated revenue in order that the burden might be fairly distributed over the whole community instead of as now pressing with particular severity upon the important industry of fruitgrowing and its allied industries.

(4) That this Conference believes and declares that the reduced annual production of jam in Australia (which now scarcely exceeds one-half the total production of 1913) is exclusively attributable to the increased price of sugar consequential upon the prohibition of imports.

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(5) That this Conference strongly objects to the present system of determining the export parity of sugar on the ground that certain refining charges and freights are used to create a false parity and affirms its conviction that, inasmuch as the class of sugar known as **Superfine Java White is just as satisfactory for manufacturing purposes** as sugar which has been subjected to the final process of refinement, it is inequitable that any refining charge should be added in determining the parity.

(6) That this Conference believes that the export parity of Australian sugar should be determined on the basis of the price paid by British manufacturers to external producers in the country of origin and not on the cost to British consumers of sugar landed c.i.f. London.

(7) That this meeting considers it grossly unfair to all Australian manufacturers using sugar as raw material that sugar produced in Australia should be sold at cut rates to

their competitors abroad, thus conferring a substantial trade advantage on the latter; and respectfully insists that whenever any surplus sugar is sold outside the Commonwealth at a price lower than the rate of export parity at that time prevailing, such lower price should be adopted in substitution of the current parity.

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At the monthly meeting of the Victorian Fruitgrowers' Central Association, a resolution was carried expressing bitter disappointment at the Prime Minister's announcement.

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## THE SUGAR INDUSTRY.

**To the Editor, "Fruit World."**

Sir,—While sympathising with the fruitgrowers, as a fellow producer (I have grown sugar cane for more than half of my "three score years and ten"), it would have been nothing short of tragedy had Mr. Bruce failed to stand up to what he knew at first hand were the imperative requirements of our great industry.

You say "It suited Mr. Bruce to ask . . . the percentage of Australians engaged in the Sugar Industry." We can only infer that the question had no concern with the deputation he addressed. Mr. Bruce knows just as much, and perhaps a little more, about the "flood of foreigners" as anybody could tell him. As I have already pointed out in the Southern press, all the foreigners do not come to Queensland. Quite a good proportion of them are located in the Southern capitals, competing with our own people as small storekeepers and in other more questionable lines of business. Also large numbers of them will be found at Kalgoorlie and other mining centres, yet these excite no hostile comment.

But as regards the sugar districts, it is a well-known fact that their presence there in the first instance was owing to the instability and devilry of the white workers coming here from the southern States, who, though amply protected by our industrial laws, and paid the highest wages and contract rates in the Commonwealth, took up an impossible attitude, and by strikes, fires and every form of injury they could inflict on the hapless canegrower, compelled him to look elsewhere for means to secure his livelihood—the fruit of his toil and enterprise. Hence the introduction of Italian workers, who were not slow to see and grasp the good things the men of our own race had turned their backs on. But they were in all the other centres and callings I have named, before the dire necessities of the sugar growers directed their attention hitherward.

"Again" (what you call) "a profitless bandying of words" with the housewives' representative was a sensible and courteous intimation to the lady that she did not know what she was talking about. I have been in correspondence with Mrs. Glencross and I know.

You say, "Australia is willing to support the industry." No doubt she is—on her own terms. But let me tell you—and Australia—that we have been through that starvation period, and will never go back to it. Mr. Bruce's policy is to "do justice to the fruit and other industries without harming the Sugar Industry." Some of our detractors have confused the issues of embargo and import duty. We do not care a "tinker's dam" about the duty, as long as we have the embargo against black-grown and produced sugar.

Since the Australian consumer has compelled us to comply with white labor conditions, which obtain nowhere else on earth, surely they are not going to deny us a modicum of comfort and a living wage in accepting their behest!

In conceding the same reduced price for sugar in jams for home consumption as for export, Mr. Bruce has removed the old (asserted) reason for not paying fruitgrowers a living return, and the least they and their spokesmen (and women) can do is to give the new regime a fair trial, and credit the Prime Minister with an honest, and, I think, a masterly attempt to solve an admittedly difficult problem.

I am, Sir, etc.,

F. J. Stevens,

Mackay, Queensland, January 6, 1925.

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**The "Fruit World's" Reply.**

We are glad to publish Mr. Stevens' letter, though perhaps it is a significant commentary on the position to state that Queensland "sugar" papers have refused to publish letters from those representing the fruit industry. One paper recently republished from the "Fruit World" a letter from a correspondent detailing certain points regarding the sugar industry in favor of the cause he advocated, but entirely neglected to republish what was a clear and convincing rebuttal of every point! And both appeared concurrently in the same issue of the "Fruit World."

Boiled down Mr. Stevens advocates

(1) Preferential treatment to the sugar industry. He wants a "modicum of comfort" no matter who else suffers. This "sympathy" with fruit industry, as expressed in the opening paragraph, is as sounding brass or a tinkling cymbal.

(2) Our correspondent conveniently overlooks the fact that when the last Royal Commission investigated the sugar industry in all its bearings, it advocated an increase of price from £21/-/- to £22/-/- per ton. Yet the then Prime Minister, without calling further evidence, announced that the price would be £30/6/8 per ton. Apparently the Royal Commission thought that a "modicum of comfort" would be obtained from the price they adduced.

(3) Mr. Stevens does not deny that 95 per cent of the men who signed on at Innisfail were Italians and Greeks, nor that these men are earning from £15/-/- to £25/-/- per week. Our friend is honest enough to admit the presence of large numbers of these foreigners in an industry which has been termed the "bulwark of the White Australia Policy." Mr. Bruce has not enhanced his reputation by a feeble attempt to avoid the painful subject. That the Southern Europeans are preferred as workers to Australians might be a profitable subject for the Australian Workers' Union to look into.—The fruit industry, too, knows something (to its cost) of the fervid attentions of the A.W.U.

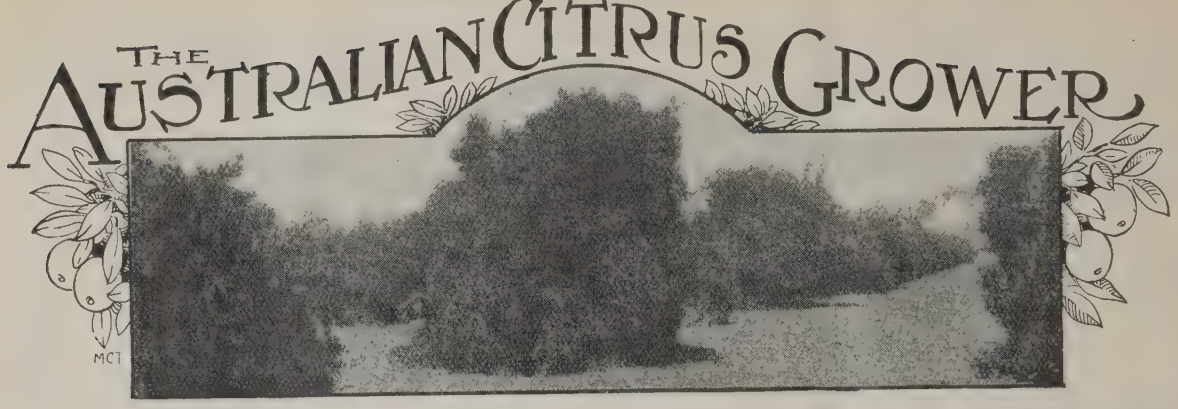
As to what Mr. Bruce really knows, and what he admits, about the "flood of foreigners" let us hear what he had to say when addressing the Australian Natives Association on January 26th.

"Recently we have successfully faced the delicate international problem of arranging with the governments of many European States for the restriction of the flow of their nationals into Australia. To best develop this country, and at the same time maintain its high economic standards, and to preserve our racial purity we must increase the flow of migrants of our own Anglo-Saxon stock."

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(4) Of course Mr. Stevens does not care a button for the duty so long as the embargo continues. And this embargo needless to say, should be made permanent? Just so, it goes without saying. And the fruit industry can lose its home trade in jam and find export markets impossible because of receiving for the latter a "world's parity," which is not world's parity.

(5) As we pointed out last issue Mrs. Glencross is not the mouthpiece of the fruit industry.




## MURRAY CITRUS GROWERS' ASSOCIATION.

### Interesting Annual Report from South Australia.

AN INTERESTING REVIEW of the 1924 operations of the Murray Citrus Growers' Co-op. Association (Australia) Ltd., is to hand from the Secretary (Mr. J. A. Parkes), and is as follows:—

**Estimates and Production.**—From estimates supplied by districts in January, 1924, the anticipated production was set down at 45,000 cases. On April 30th, a revision was made. and the estimate was increased to 58,320 cases.

Without a complete record of all sales, it is impossible to say definitely what the actual production was, but available returns indicate that the estimate was exceeded, and that the output for 1924 season reached 64,000 cases, as compared with (approximately) 56,000 in 1923.

**Melbourne Marketing.** — Shortly after the season's operations commenced, the I.F.M. Company was added to the list of agents. The report of the market representative is not yet available, neither is it possible to indicate the quantity of fruit handled by the Association agents, but it is estimated that our quota to that market approximated 45,917 cases compared with 32,572 for 1923 season.

Without statistics it would be premature to comment on prices realised, but they will, I am sure, be regarded as very satisfactory. In early August, representations were made by a Renmark delegate to the central executive that growers in that district were dissatisfied with the Melbourne marketing system. As the outcome of that protest, Mr. C. H. Katekar (Renmark) and the writer proceeded to Melbourne to investigate, and after a very careful and exhaustive enquiry, advised executive that they were entirely satisfied that everything possible was being done to conserve the growers' interests, and secure for them the highest market value for their fruit.

Valuable evidence was adduced regarding the condition and pack of fruit as it reached the Melbourne market, and as a result of the report the individual grower who takes the trouble to study it, should certainly reap some advantage.

The central executive, after the presentation of the report, resolved that no further action was necessary. The report was forwarded to branches and central executive delegates.

**Export.**—Our export has fallen from 14,063 cases in 1922 to 1,909 during the past season, the contribution from the various districts being: —Waikerie 936, Berri 439, Renmark 315, Murray View 200, Ramco 19.

**Industrial Troubles.** — Last year our fruit reached London during the dockers' strike, and this season, during the strike at Covent Garden markets, this naturally caused a small increase in our handling charges. The first consignment ex "Esperance Bay" was landed at London, and the second ex "Moreton Bay" was discharged at Hull, and portion of the consignment railed to Liverpool for sale there.

This action was considered desirable in view of large shipments being discharged at Hull at the same period. Prices obtained in Liverpool were on a par with those at Hull, but the railage charges slightly reduced the net realisation.

The gross amount obtained for the various districts was:—

"Esperance Bay," London.—Ramco 25/9½, Murray View 25/2¾, Waikerie 25/0¾, Renmark 24/9¾., Berri 24/6¼.

"Moreton Bay," Hull.—Waikerie 25/7, Murray View 25/4¼, Renmark, 23/10¾.

"Moreton Bay," Liverpool.—Waikerie 25/10¾, Berri 23/10¾.

For Waikerie, Ramco and Murray View, a gross realisation of 25/- London, would net at least 7/6 the bushel case in those districts, but at Berri and Renmark, where the local handling charges are higher, it would mean less.

These prices were a great improvement on the previous season's, when the London gross realisation for similar shipments was approximately 21/- and 20/- respectively.

**Condition of Fruit.**—In reviewing our export for 1923 season, I remarked that the outstanding feature of the 1922 season was the excellent condition, generally speaking, in which the fruit arrived, and that it was extremely pleasing to record another success in that direction, as in over 5,000 cases, the loss in repacking was only 38. It is most gratifying to again reiterate what has been said of the 1922-3 consignments; respecting our 1924 shipments, the quantity was, of course, considerably less, but no deduction whatever was made for waste.

Commenting on the "Esperance Bay" parcel, Mr. Lewis, the London Trade Commissioner, writes:—

"Some of the Waikerie parcel showed black dirt marks on the fruit round the stalk. Whilst this is not a serious defect, I would like to know if it could be overcome by wiping before shipment. It does detract from the external appearance of the Oranges, and when high values are being asked buyers are naturally discriminating.

"On the whole, the 'Esperance Bay' was a very nice parcel of fruit, and the landed condition was very satisfactory. I purchased a case myself on the Berri parcel, and have a portion remaining still in excellent condition, with a life still in the Oranges of some weeks, and it is now just on four weeks since the 'Esperance Bay' arrived. It is unfortunate that our shipping is closing down so soon, and that our quantities were so small. Buyers are loth to take a real interest in a small shipment or two when they know that South Africa will continue week by week throughout the season with regular supplies.

"At the same time, however, it has been sound tactics of the Association to keep the quality of our Oranges before the market. The general appearance of our cases was very attractive, and we have certainly got this Orange business into good shape. Regarding the wire banding, I would advise that this is a decided advantage and worthy of adoption. All South African Oranges come to this market bound, and I feel that we should follow their lead."

Messrs. Da Costa, the selling agents for the Government Produce Department, through whom our export was shipped, remark regarding the above shipment:—

"We have to report that the landed condition of the above consignment was generally satisfactory. Whilst we feel that the quality of the fruit was not up to our last season's stan-

dard, we would particularly call your attention to the Waikerie branch fruit, many Oranges being marked with dirt. Murray View—whilst good, fresh colored fruit, same were rather coarse. The Ramco, Berri and Renmark were all fair average fruit.

"We would again state that the fruit is still under-sized. The size of the Oranges packed in a box marked 96 is only the size of what is known as the 112 standard. The same applies to all other sizes.

"At your request, we are obtaining the grading rings as used in South Africa, in order that the shippers in South Australia will then realise the standard size required.

**MARGETSON**
**& CO. LTD.**

Fruit Importers & Salesmen

30 James St. and James St. Warehouses,
11 Neal St.,
COVENT GARDEN
LONDON, W.C.
and at
Jamaica House,
9 & 10 Botolph Lane, London, E.C.
& 56-58 Stanley St., Liverpool

Sales by PRIVATE TREATY.
Prompt Returns & Settlements
Tel. Add.—FRUTERO, LONDON.
MARGETSON, LIVERPOOL

*Head Office—Covent Garden Market, London, W.C.*

Bankers:
LLOYD'S BANK LIMITED
Law Courts Branch, Strand, London, W.C.

**Shipping Nos.**
**431 and 432**

"We are glad to report that the cases were an improvement on last season's, all being securely nailed, in consequence of which we had but very little damage and pilferage."

**South African Standard.**—Although we have endeavoured to standardise our export pack on similar lines to California, South Africa is really our serious competitor on the London market on account of our seasons being identical, and as that country exports more than 10,000 cases to every 1,000 Australian, buyers very naturally desire uniform conditions in pack. Their claim is that a case of our 96 fruit should, "Judged by the size of the Oranges contained therein, contain 112 fruit."

An examination of a Californian chart showing the sizes of Oranges packed to certain counts, reveals discrepancies between their pack and the South African. I am hoping that before our next export begins to receive from Mr. Lewis the South African rings, it should then be possible to locate the variation.

**South African Export.**—It may be interesting to growers to know that whereas in 1911 their export amounted to only 14,454 boxes, in 1923 it had risen to 412,000.

**Other London Shipments.**—Some of our growers requested permission to sell to Messrs. McClure, Valantine & Co. a certain quantity for overseas shipment. This was granted, and the parcel of 778 cases from Waikerie and Berri growers reached London at the same time as the Association's shipment ex "Esperance Bay."

The gross realisation for the whole shipment was 20/1 as compared with 24/11 for our own. I regard this result as a distinct triumph for our agent, and reflects very greatly to his credit. The loss to McClure, Valantine on this shipment must have been considerable, as the grower received 12/- per Californian case on rails less cost of packing and grading.

**Late Consignments.**—Shipment of 100 cases was also made by a Renmark grower through an agent of his choice. This parcel left ex "Jervis Bay" on August 23rd, and arrived in London September 28th, and was sold at an average rate of 27/4¾ per case.

In view of the higher prices obtainable for later shipments, executive may possibly reconsider its decision not to make consignments later than July.

During the past two seasons, Victoria and New South Wales have received much higher prices for their late than their early lots. This has also been their experience during the past season, as is instanced by the following:—Victorian Navels, ex "Largs Bay," leaving Melbourne September 10, reaching London October 18th, sold up to 31/- per case; New South Wales, ex same boat, Mediterranean Sweets and Late Valencias sold up to 30/-.

Victorian Navels ex "Hobson Bay," leaving Melbourne 23rd September, and reaching London 8th November, fetched up to 32/- per case, the gross average would be, say, 26/- to 27/- per case.

According to circulars received from J. C. Houghton & Co., Liverpool, South African supplies were practically exhausted by September 17th, and prices were 21/- to 26/6. The following week Californian fruit was arriving freely, and sold at from 26/6 to 36/-. On October 15th small supplies only were available, Californian fetching 26/- to 32/6, and South African 23/6 to 31/-. The week following about 5,000 cases Californian were on offer at from 22/- to 36/6 per box.

After that date supplies were mainly from Spain. It is very apparent that the later shipments arriving at a period of limited supplies are more remunerative than those of earlier periods when the market is well supplied.

**Variations in London Prices.**—Without personal knowledge of all methods governing London selling operations, and the exact condition in which the fruit is packed and arrives there, it is difficult to even attempt an understanding of the variations in prices for the different States, but taking our two shipments this season, and comparing them with the consignments from Eastern States, and Western Australia on the same boat, the fact is again disclosed that our prices are much better.

I can only assume that the States in question will take steps to find the reason. Whatever the cause, it is exceedingly pleasing to realise that our pack has achieved such satisfactory results. While complimenting our growers and packing houses on these results, I would ask them to concentrate their efforts with a view to upholding the reputation already created.

**T. STOTT & SONS**
**Fruit Merchants**
Established 1882

**A Trial Consignment solicited from Growers in all States.**

**Prompt Settlement.**

**11 WESTERN MARKET,**
**Melbourne**

**Fruit Shipments**
**LONDON**
**Liverpool and the Continent**

**W. D. PEACOCK**
**& CO.**
24 Martin Lane, Cannon St.
LONDON, E.C., 4
AND HOBART, TASMANIA
*Solicit Consignments*

The High Standing and Long Experience of this Firm is a Guarantee that the Best Interests of Consignors will be conserved.

**Sooty Fungus.**—As will be seen from the remarks of Messrs. Da Costa and Lewis, some of the fruit presented a dirty appearance. This was undoubtedly the effect of Sooty Fungus, about which Melbourne authorities complained.

Should there be a recurrence of it in the coming season, it is to be hoped such fruit will not be packed for export.

**London Exchange.**—We have been singularly fortunate in recent years in having no exchange to pay for the transfer of our London sales remittances. Other Citrus Associations have not been so fortunate, and have had to meet this each season. I have been advised by the Department that on our coming season's export, exchange at the rate of 70/- per cent. will be payable. This, on the basis of our gross average realisation for the past season, would have meant a reduction of 10½d. per case.

**TASMANIA**

We are the Leading Australian Firm of
**FRESH FRUIT EXPORTERS, JAM MANUFACTURERS (IXL Brand), FRUIT CANNERS, HOP FACTORS** (owning the largest cool stores for this purpose in the Commonwealth).
Supplies of Corrugated Strawboard, Genuine Sulphite Paper, Nails and best Packing Materials available at all times.
Sole Distributing Agents for the Southern Tasmanian Associated Manufacturers of Evaporated (dried) Apples.

Agents for—
Federal Steam Navigation Co. Ltd., Scottish Shire Line of Steamers, Osaka Shosen Kaisha, London Assurance Corporation.

Correspondence Invited.

**H. JONES & CO. LTD.,**
HOBART

**Appreciation of Services.**—I cannot close these export comments without reference to the good work of the Government Produce Department and their selling agent.

The strike in Covent Garden Markets at the time the fruit arrived, made the situation very difficult for Mr. Lewis, but by splitting the second consignment between Liverpool and Hull, and instructing his agent to hold the parcel at the latter port until the glut eased, a sacrifice in price was averted.

---

**British Trade Commissioner.**—The offices of H.M. Senior Trade Commissioner in Australia have been transferred from Commerce House to Henty House, Little Collins-street, Melbourne.

## MARSTON PROCESS.

### Encouraging Results from Experiments.

### Dipping Citrus Fruits.

### Report by Mr. J. A. Parkes.

Further experiments have been conducted during the season.

A room was secured at the East End Market and the whole of the operations were carried out by Mr. Marston under my supervision and with my assistance. A report has been submitted to the Federal Government through the V.C.C.A., and application has been made for the necessary financial assistance to carry out the experiments during the coming season, and also to make some payment to the vendors on account of the option, which is still held by the affiliated Associations.

The results of the experiments are sufficiently satisfactory to warrant a continuance of the tests during the coming season, when it is anticipated that the processing will be done in the districts as soon after picking as possible, this, in the opinion of the demonstrator and the writer, would add materially to the success of the process.

**Californian Problem.**—A communication recently forwarded by Mr. Elder (Australian Commissioner in the U.S.A.) to the Prime Minister, indicates that the blue mould is very much in evidence in California, and a system known as the "Brogdex" has been introduced, and it is claimed for this process that refrigeration can be entirely dispensed with. The report contains details of experiments wherein fruit has been purposely damaged, and then inoculated with blue mould, and after treatment has shown remarkable results.

The fruit is first sweated, then placed in a washer into which certain ingredients are introduced for the purpose of destroying the mould, this is known as the "Brogdite" process. After drying, the fruit is subjected to the "Brogdex" process, which places a coating of paraffine over the Orange, and it is then claimed to be immune from decay for several weeks.

What the process means to the citrus industry may be imagined from the following statement by the President of the Californian Fruit Growers' Exchange, which reads:—

"Pre-cooling and refrigeration charges under present conditions are given as 3,500,000 dol, in round figures a year, and losses by decay at 3,000,000 dol. It is said that more than half the first sum and at least 80 per cent. of the second could be saved if all citrus fruit was processed,"

and also the following by the manager, Walnut Fruit Growers' Association:—

"That in the shipment of the Association's output of 265 cars this season, not a pound of ice was used, and the decay was less than one-half of one per cent., or practically nothing as compared with the loss on iced shipments."

It is not possible at this juncture to make any comparison between this process and our own, but Mr. Marston and I have been asked to report on it.

Patent rights have been applied for in all citrus producing countries.

**Blue Mould Menace.**—The citrus grower may take heart from the above comments. Blue mould has been the cause of untold loss to the industry, and as Mr. Marston points out in his report, until very recently it has been found impossible to combat the disease without destroying the fruit. Under these circumstances the experiments here and in California represent a distinct advance in the attempts to provide a suitable remedy for this disease.

**Reports on Marston Process.**—The reports prepared by Mr. Marston and myself, together with "Record Sheets" and "Waste Percentages" have been forwarded to branches and members of Central Executive, so that information contained therein should become available to all growers.

[The "Marston process" is a system of dipping citrus fruits into a patent preparation as previously described in the "Fruit World.—Ed. "F.W."]

**R. JOEL & SONS**

16, 17, 20 RUSSELL ST.
Covent Garden Market
**LONDON, W.C.2**

**Open for Consignments of all Australian, Tasmanian and New Zealand Fruits**

**SALES BY PRIVATE TREATY ONLY.**

WHICH GIVES THE BEST RESULTS

PROMPT RETURNS AND SETTLEMENTS.
Cash advanced to cover freight and overcharges, etc.
Cablegrams:
**AINSJOLFRU-RAND-LONDON.**
Agents Wanted in—
MELBOURNE, HOBART, NEW ZEALAND and WESTERN AUSTRALIA.
BANKERS:
National Provincial Bank Ltd., Long Acre, London. Barclay's Bank, Henrietta Street, Covent Garden.

# Organised Citrus Growers.

## Interesting Report from California.

ORGANISATION in the fruit industry in Australia is a subject of perennial interest, yet effective organisation amongst growers is all too rare.

True, there are some outstanding examples of successful co-operative effort, but there have been altogether too many failures.

The reasons for these failures are many—starting on wrong lines, bad management, attempting ideals beyond the legitimate scope of the organisation, lack of co-operation with wholesale and retail traders and other causes.

Australia is not alone in this matter of failure of co-operative effort amongst fruitgrowers. Each country could tell its own story. Even California has learned by experience "how not to do it."

One bright example of success to which we are proud to refer is the California Fruitgrowers' Exchange, a citrus organisation with an annual turnover of over £16,000,000. This organisation has been in existence for 21 years, and was built on the foundations well and truly laid by the late G. Harold Powell.

A resume of the 1923-24 report of the present general manager of the Exchange (Mr. E. G. Dezell) (republished from the Californian "Citrograph") is given hereunder.

In passing it is worth mentioning that there passed through Victoria and N.S.W. during January an interesting visitor in the person of Dr. R. J. Blatt, a South African citrus expert, who was returning to his native country after four years intensive study of citrus in California.

Dr. Blatt noted the high quality of citrus produced in Australia, and expressed the earnest desire that South Africa and Australia should work closely together in the development of their respective fruit industries, seeing that both countries exported to the United Kingdom during the same period of the year. There was much to be gained, he said, by mutual collaboration.

Dr. Blatt then went on to speak in high terms of the efficiency of the California Fruitgrowers' Exchange, and without being hpyercritical, he directed attention to some points of major importance, where Australia was falling short of the successful fundamental principles on which the Californian organisation was built.

We are publishing in subsequent issues of the "Fruit World," a careful article by Dr. Blatt on the subject of **"The Apparent Scope and Limitation of Co-operative Marketing."**

**Success in California has been attained without Government compulsion, and by active and whole-hearted co-operation with the wholesale and retail trade.**

We now give a resume of the report referred to, thus:—

### Summary.

Total supplies of citrus fruits in the markets of the United States and Canada during the season 1923-1924 again showed an increase over those of any previous season.

Approximately 43,000,000 boxes of Oranges and Grapefruit and 5,500,000 boxes of Lemons were sold in the twelve-month period just closed.

California supplied about 22,000,000 boxes of the Oranges and Grapefruit (mostly Oranges), and Florida shipped something over 20 million boxes, of which about 60 per cent. were Oranges and 40 per cent. Grapefruit. The remainder came from Porto Rico, Louisiana, Alabama, Texas and Arizona, with some importations from Japan into Pacific Coast markets.

Citrus fruit supplies in the markets this past season exceeded the 1922-23 season by 15 per cent., and were 60 per cent. greater than the total quantity shipped five years ago.

Shipments of Oranges and Grapefruit between November 1 and April 30 from California and Florida were 23 per cent. greater than the year previous, there having been shipped twenty-nine and one-half million compared with twenty-four million boxes the year before.

Total shipments of Oranges and Grapefruit from California as reported by the railroads for the year were 47,635 carloads, and Lemons 13,097 cars, or a grand total of 60,732 carloads of citrus.

The California Fruit Growers' Exchange shipped 32,715 carsof Oranges and Grapefruit, 11,551 cars of Lemons, totalling 44,266 carloads, which was 72.9 per cent. of the shipments from the State.

Returns f.o.b. cars California from shipments through the Exchange, estimating the value of cars yet unsold, were £10,103,099, making the delivered value to the wholesale trade £15,243,848. Using Exchange returns as a basis, the returns to California were £13,965,247.

The average person in the United States and Canada now consumes 58 Oranges, 5 Grapefruit, and 16 Lemons a year.

Further details next issue.

## PRICE OF LEMONS.

The Editor, "Fruit World."

Sir,—I have read with interest the correspondence between C. M. Brooke and Sons and the Californian Fruit Growers' Exchange, and I agree with the remarks contained in the footnote that £4/10/- per ton at the packing house would not pay the Australian growers. I would like to have the following information:—

(1) The methods, picking, packing, grading, curing, storing, marketing, and distributing employed in U.S.A.?

(2) Which was the most effective means of advertising, and on what lines was the publicity campaign carried out on.

(3) To what extent did this publicity campaign increase the demand for Lemons?

(4) What prices do the growers in California obtain as compared with the growers in Australia?

If the growers in California can take £4/10/- per ton for their culls at the packing house, surely we in Australia can profit by the experience of our American brothers.—I am,

JOHN B. HECKLEY.

Maroota, via Windsor, N.S.W.

**Red Scale on Citrus.**—It is interesting to note that Mr. W. S. Arnold, of Kurrajong, N.S.W., will shortly be conducting experiments with a view to ascertaining which is the most effective method of treating citrus trees for Red Scale. On the 4th and 5th February, Mr. Arnold is testing out the Pot System, Dust System and Anhydrous Cyaniding, and the Vacuum Oil Co. will spray an adjacent lot of trees on the same area, their contention being that spraying is the only commercial method of wiping out scale.

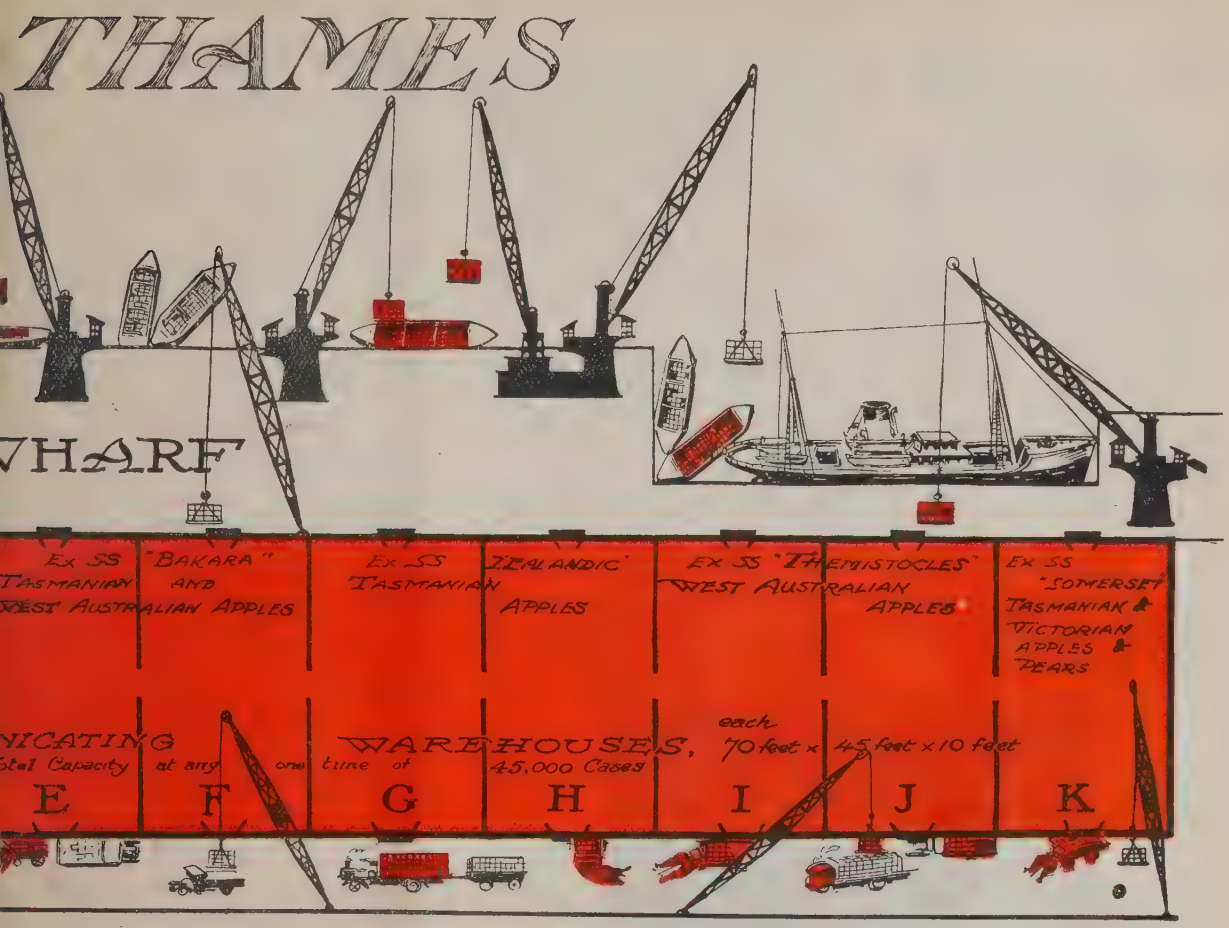
## GRADING REGULATIONS.

### A Correction.

We wish to draw attention to an error which occurred in our January issue, on page 9, whereon is a report of the Tasmanian Fruit Advisory Board. In this it is stated that the Board was requesting a blemish allowance for 100 per cent. of the fruits in a case, with a limitation of not more than five-eighths of an inch in diameter in the aggregate.

The decision arrived at at the meeting was to oppose the alteration of the grade designations, request the maintenance of the "special" and "standard" grades in entirety without alteration, and that the plain grade carry an allowance of 100 per cent. blemishes on fruits in a case, with a maximum aggregate of three-eighths of an inch in diameter.


RIVER
LONDON BRIDGE.
COTTON'S
EX SS PORT
WEST AUSTRALIAN
WEST AUSTRALIAN
WEST AUSTRALIAN
INTER-
SPECIAL
BANANA RIPENING
ROOM
OFFICES
CANARY ISL
PRODUCE
WAREHOUSE
ENTRANCE TO
NOTHARD LOWE & WILLS
AND NOTHARD & LOWES
OFFICES.
DUKE STREET
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LONDON
BRIDGE STATION
[SOUTHERN RAILWAY TERMINI]




# Study this Picture and Note

## the most up-to-date way of handling fruit

## Direct from Lighters to our Warehouses

## IN THE HEART OF LONDON

No unnecessary handling
No bumping along roads
} When you send to

# NOTHARD, LOWE & WILLS LTD.

Then again . . .

**ALL FRUIT IS SOLD ON ITS MERITS—BY PRIVATE TREATY**

**The Warehouses of Nothard, Lowe & Wills Ltd. are colored Red on the plan.**

There are no more up-to-date methods in the world than ours, and that is why we have built up our extensive business and given 20 years satisfaction to Australian Fruitgrowers.

For full information apply to :

Victoria—J. B. MILLS & CO., 9 Queen Street, Melbourne.
South Australia—GEO. WILLS & CO. LTD., Adelaide.
West Australia—GEO. WILLS & CO. LTD., Perth & Freemantle. HENRY WILLS & CO., Albany
Tasmania—C. PIESSE & CO., Hobart.

# Williams Pear Publicity

### Fine Response in Victoria.

A vigorous campaign to increase the consumption of Williams Pears has been successfully launched in Victoria.

The movement commenced in the Goulburn Valley. When it was realised that a heavy crop was likely, a group of men considered the position, consulted their fellow growers, and finally an "advertising committee" was formed, and an agreement was drawn up between the growers and this committee, promising 1½d. per case on the Pears marketed. This provided sufficient funds for the campaign to be planned.

A striking poster in natural colors was designed and printed. The central thought is a spray of ripe luscious Williams Pears. A photo of the poster appears below.

Then a pamphlet was issued in large quantities, containing useful tested recipes from the Melbourne School of Domestic Economy.

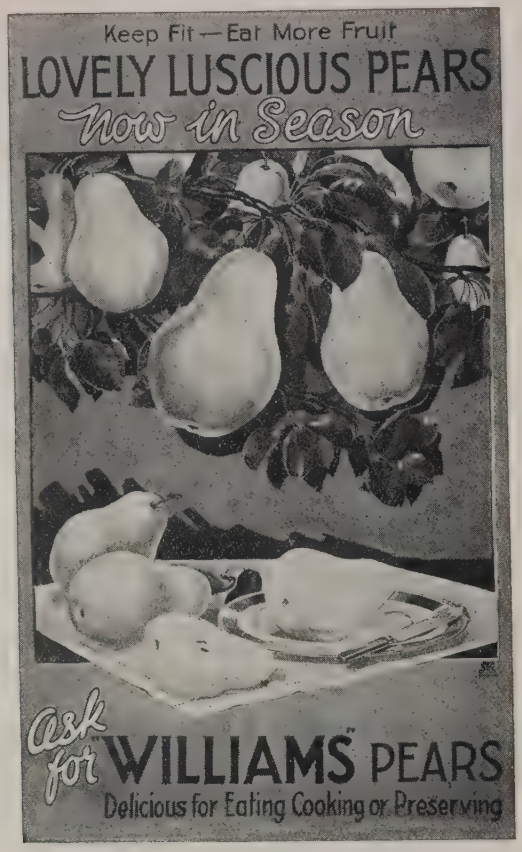
The Victorian Railways Department has rendered invaluable service in many ways; by their ready co-operation the whole campaign has been made possible. The Chairman of the Williams Pear Advertising Committee is Mr. V. R. McNab; and the Secretary, Mr. Frank T. Pullar, both of Ardmona. The Publicity Representative is Mr. R. E. Boardman, 9 Queen Street, Melbourne.

From the inception of the campaign, there are evidences of the increased demand on the part of the public for Pears.

As soon as the poster appeared on the central railway station at Flinders Street, Melbourne, enquiries were received for the Pears, and the available supply was exhausted, necessitating larger wholesale purchases.

Retail fruiterers throughout the city and suburbs have displayed the posters, and are distributing the pamphlets. Many report that the increase in business has been very pleasing.

Congratulations on the handsome design of the poster and the usefulness of the information in the pamphlet are very numerous.




ISSUED BY THE VICTORIAN PEAR GROWERS ASSOCIATION IN CONJUNCTION WITH VICTORIAN RAILWAYS

# Apples for Germany.

### Prospects are Favorable.

In a letter to the "Fruit World," dated November 17th, Messrs. Ph. Astheimer & Son, fruit brokers, Hamburg, write:—

Regarding the outlet of Australasian Apples into Germany we wish to say, that during the past season we already had transhipment from England amounting to about 80,000 cases, of which our firm handled about 30,000 to good advantage for the owners. We, however, regret to say that transhipments are not so much desirable as direct shipments, on account of suffering too much from knocking around while in transit. The fruit is getting bruised, and consequently not attractive. To build up the business again on the same lines as we did in pre-war times it is absolutely necessary **that steamers with refrigerator rooms run to Hamburg and discharge the fruit direct into our fruit piers.**

The German Australian Steamship Company has at present not yet any steamers with refrigerator rooms, and consequently the Australasian shippers must get together and make preparations in accordance with English or Australasian Steamship Companies to run steamers with refrigerator rooms to Hamburg.

**In our opinion at least five steamers with about 30,000 cases each for Hamburg should be provided for,** and we feel sure, that the companies will be willing to run steamers to Hamburg if they get the proper assistance from the shippers.

If the steamship companies would not be willing to touch the different ports in South Australia, Victoria, West Australia and Tasmania, it would be alright, if they would take fruit cargoes in two ports only. For instance, in the beginning of the season loading principally in West Australia and/or in Melbourne and Adelaide; later in the season, when West Australia is finished, Tasmania should be included.

**During the seasons of 1913-14 we imported into Hamburg about 400,000 cases of Australasian Apples, and we feel sure the next season we will be able to take at good prices 150,000 boxes.** As you are well aware Hamburg is not providing only Germany with oversea fruit, but it is providing all Middle Europe, especially as far as Australasian and American Apples are concerned.

**Our outlet in Oranges, Lemons, Grapes is nearly as important as in pre-war times.**

---

**Sloganitis.**—The market gardeners' slogan—a suggestion—"Every day and every hour, eat a blooming cauliflower!"

## COASTAL FARMERS' SOCIETY.

An arrangement was entered into early in December whereby the Coastal Farmers' Co-operative Company agreed to act as consignees' agents at Darling Harbour to receive and distribute fruit from the Leeton growers and packing houses to the various agents in the markets. Arrangements were made with a carrying firm to handle all fruit from Darling Harbour at ¾d. per half-case and 1d. per case cartage. It was decided that a representative of the Coastal Farmers be at the Leeton railway station to receive the fruit from all growers co-operating, he to give a receipt for all fruit on rail, and get the necessary authority from each grower to have the various charges (such as freights, etc.) deducted from their accounts sale. It was also arranged that the local branch of the C.F.S. have daily returns of the rail freights charged in order that growers could check the railage debited by the various agents on their account sales.

The agreement was signed by the President and Secretary of the Leeton Branch of the N.S.W. Fruitgrowers' Association on behalf of the fruitgrowers, and a representative of each individual packing house on the one hand, and the Coastal Farmers as contractors.

On the 17th December it was reported that during the first fortnight in December, 150 tons were despatched by the Coastal Farmers' Co-op, Society's depot for the fresh fruit market, and their further consignments were anticipated to total up to 400 tons. The Leeton Cannery will absorb for processing more than all other avenues of distribution combined by about 300 tons.

COVENT GARDEN,
LONDON
**Ridley, Houlding**
& CO.,
**Large Receivers of Australian Fruits.**
Solicit Consignments of
**Apples, Pears, &c.,**
Best market prices and prompt account sales returned.
Correspondence invited.
Representative in Victoria
THE
International Fruit & Mercantile Co.,
410 Flinders Lane, Melbourne
MURDOCH BROS., Hobart

**HAMBURG**
(GERMANY)
**J. H. Lutten & Son**
Hamburg (Germany)
**Fruit Brokers & Auctioneers**
Established 1835
**FINEST TABLE APPLES A SPECIALTY**
**Sale Room "Fruchthof"**
Consignment of Apples Solicited
Best market values and most favorable conditions
Cash advances made if desired

## DOING THE ODD REPAIRS.

### A Helpful Outfit for the Orchardist.

Elsewhere in our columns appears an announcement regarding the Stewart Handy Worker. This is stated to be an exceptionally valuable article for the orchardist, comprising, as it does, six most useful tools, all together in a strong little outfit that takes up little room.

The Handy Worker has an anvil, a cutting hardie, carborundum grinding wheel, drilling jig that will take drills of many sizes, a four-inch vyce, and a pipe vyce, that will hold pipe up to 1½in. in diameter.

The Stewart Handy Worker bolts down securely to a bench, taking up no more space than 9 inches by 12 inches. Its weight unpacked is 76 lbs.

For such an outfit dozens of various uses at once suggest themselves. Harness mending, tool sharpening, waggon repairs, odd jobs on machinery—a hundred and one things, many of which now have to be given out to a workshop and paid for.

Car owners, too, are able to get good service for each of the six tools in the "Handy Worker," everyone of which is always on hand ready for immediate use.

The complete outfit, with two drills, may be had at a price of £5/15/-, a figure far below that at which the tools could be bought individually.

The proprietors of the Stewart Handy Worker, Cooper Engineering Co. Ltd., of 358 Spencer-street, Melbourne, invite all who are interested in the outfit to write them for full description.

## FRUIT SHOULD BE ADVERTISED.

Through advertising, the process by which men are able to satisfy their wants is vastly facilitated. It may not be the most important factor. But nobody dare say just how important it is. The only way we could ever find out would be to try an advertisingless world for a year. Then we'd know. But we all know that if it weren't for advertising, we—you and I and the other fellow— would have to do without a great many things that we have come to want. Perhaps most of them.—A. F. G. Thacher.

## Classified Advertisements.

### Wanted and For Sale.

Advertisements under this heading, which cannot exceed one inch, will be classified as far as possible.

**Prices are as follows:—**

Casual Advertisements, one or three months—9d. per line of six words. Nine lines to the inch.

Contract Advertisements, six or twelve month, 6d. per line of 6 words, 9 lines to the inch.

Send cash with order.

### BOOKS.

PRUNING FRUIT TREES, By C. Quinn. Illustrated. 5/- posted—"Fruit World," 9 Queen Street, Melbourne, Vic.

### SITUATION VACANT.

WANTED.— Single or Married Man, understands Fruit and Vegetable Growing, to Work Orchard, or Share, or Lease.
Apply "ORCHARD,"
c/o "Fruit World."

### WANTED TO SELL.

HARVEY One-way Disc Cultivator, practically new. £22. Apply, "Cranbourne," c/o "Fruit World," 9 Queen Street, Melbourne.

### FRUIT CASES.

FRUIT CASES supplied at reasonable price. Write for quotation,
R. W. HALL,
Case Maker,
Mitcham, Vic.

**SMALL FIGS**
**We are Buyers!**
**C. M. BROOKE & SONS**
73 Whiteman St., South Melbourne, Vic.

### "GET BACK TO NATURE."

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# THE "Sunraysed" Courier



## "SUN-RAYSED" NEWS.

### Wembley and Publicity.

When Wembley re-opens in April, it is anticipated that souvenir boxes, as a means of advertising our fruits, will again be made available to the public.

The many thousands in Australia who sent boxes of our fruits to friends overseas, will be circularised and again given an opportunity to renew their friendships in this eminently practical way.

The success of this idea of bringing our fruits before the British housewife has been most gratifying, and letters are still pouring in couched in the happiest terms.

The working of the scheme (which originated with Mr. R. L. Barnes, now of our London staff) will be managed in London by him, our headquarters being in Australia House.

Fruit has already been allocated for the purpose of publicity overseas, and for sale at Wembley. Association growers may rest assured that not a stone will be left unturned this year in a strenuous effort to open every possible avenue where sales of our fruits can possibly be made with increased profit to growers. Growers on their part can assist a great deal more perhaps than they realise yet, in this big publicity drive. As our London manager, Mr. W. P. Caro, has pointed out in his able report on the overseas publicity—"A publicity campaign commences with the grower in the vineyard and orchard"—and again—"Once we have the right quality fruit . . . . we can talk about a real publicity campaign, the foundations of which are well and truly laid in England."

There can be little doubt that the small souvenir boxes have formed a great part of these well-laid foundations of future publicity. Growers can help to assure the growth and development of these "small beginnings" by giving their "whole-hearted co-operation" in the production of well-grown, well-cured, high quality fruit.

### A Wembley Exhibit.

The photo. on the front page of this issue is of an A.D.F.A. Dried Fruit stall at the Wembley Exhibition (Australian Pavilion). Altogether, there were four of these handsome selling stands in different parts of the pavilion. Growers can see by a glance at this picture that their fruit was admirably displayed in a most tempting array.

The growing popularity of the cartons is illustrated by the following figures extracted from our London manager's letter, dated 13/11/24, giving the amount of the takings each week from the sales of cartons and "souvenir" boxes:—

**Sales at Wembley.**—I give you herewith our sales up to the closing day, November 1st, which you will note vary considerably. The weeks when our takings were small were due to the very inclement weather London experienced during the month of October:—

| Week ending— | | | |
|---|---|---|---|
| September 5th . . . . | £353 | 10 | 7 |
| September 12th . . . . | £425 | 14 | 6 |
| September 19th . . . . | £409 | 3 | 8 |
| September 26th . . . . | £347 | 18 | 0 |
| October 3rd . . . . . | £233 | 9 | 6 |
| October 10th . . . . . | £222 | 7 | 6 |
| October 17th . . . . . | £207 | 7 | 9 |
| October 24th . . . . . | £196 | 9 | 3 |
| November 1st . . . . . | £425 | 12 | 6 |

### Publicity in Country Towns in New South Wales.

Under the aegis of the N.S.W. Australian-made Preference League, a splendidly equipped exhibition is now touring thirty of the biggest towns of New South Wales. Forty Australian-manufactured articles are displayed in the largest hall available in each town, and our "Sun-Raysed" brand of dried fruits forms one of the most conspicuous lines exhibited.

Before the exhibition opens, a luncheon is held to which all the influential townsmen, Mayor, headmasters of schools, and business men are invited. To them the whole scheme is outlined, and the necessity for supporting home and local industries is stressed. The luncheon itself is a splendid idea apart from the speech-making opportunity, inasmuch as every course from soups to nuts and "Sun-Raysed" Raisins, consists of Australian foodstuffs, samples of which are displayed and purchasable at the Exhibition.

The scheme is altogether a brilliant conception. As far as our "Sun-Raysed" Brand is concerned, it will have a far-reaching effect for good in that it will pioneer our product in the hinterland of New South Wales in a way never attempted before. Capable demonstrators exhibit the finished article in the shape of Raisin loaves, fruit cakes and fruit moulds, etc., and distribute recipe books.

The people in these back-country towns are thoroughly Australian at heart, and athirst for information about our products.

The exhibition more than satisfies this thirst for knowledge. It awakens an oft-times latent national spirit, and gives all those who come in contact with it just that impetus to purchase and to keep on purchasing, which is so essential if prosperous primary and secondary industries are to be built up in Australia.

Through the medium of this Exhibition our product and prospective country purchasers are brought into fertile union in an atmosphere charged with strong national sentiment.

It is of paramount importance that the consumption of our products in Australia is increased, and this Exhibition is one of the most efficient mediums through which this very desirable object may be obtained.

There is already a suggestion before the Victorian Chamber of Manufacturers and A.N.A. to have similar propaganda in Victoria, and there is no doubt that it will have a profound influence for good in bringing Australian-made products prominently and forcefully before the public.

### Dried Fruits for Canada.

The Ford Motor Company is still very active in Canada on our behalf. Hundreds of enquiries have been forwarded from their head office, Ford, Ontario, which were received from retailers, merchants and agents in all parts of Canada in answer to their circular letters.

Our agents have been put in touch with every enquirer, and it is up to us now to get the business—and there seems to be plenty of it.

Dr. Page, who sailed for Canada a few weeks ago on a business trip, took with him 20 large boxes containing samples of all varieties of our fruits.

These samples will be shown to parliamentarians throughout Canada during Dr. Page's trip, and will give

them an excellent idea of the quality and variety of our dried fruits.

The fruit was very attractively packed in the form of large "souvenir" boxes, and will no doubt create a most favorable impression—there's no getting away from it, when our fruit is properly graded to size and packed with a little more than ordinary care in boxes edged with lace paper—it does look fine though we say it ourselves.

We cannot but hope that Dr. Page will be able to influence those who can help us in our efforts to get down to business with our Canadian friends.

He would be blind who could not see the benefits that will accrue from this friendly inter-Empire reciprocity which will but serve to make stronger and more enduring the bonds of both kinship and business relationships in two young and fast developing nations.

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### Raisin Bread.

The popularity of this line has been maintained over the holidays, the cooler weather favouring its sale.

The sales in South Australia, particularly in the country districts, are rapidly increasing, so our Mr. Glenister informs us, and are rapidly approaching the 40,000 loaves per month mark.

This is good news, and considerable improvement is expected everywhere in the autumn and winter.

Captain Newman, of Tasmania, was over for the Board meeting in January, and stated, when interviewed, that Raisin bread was booming in the island State. As usual he takes a most optimistic view of the future, and his breezy enthusiasm is infectious.

His confidence takes the form of an estimate of the quantity of Raisins little "Tassy" will consume—not less than 150 tons, he calculates, will be eaten per medium of these fruity loaves.

Through his instrumentality the 3d. cartons are getting a good spin over there, and should prove a "best seller" as a confectionery line.

He took with him our best wishes for success in all he is doing for the Association in Tasmania.

### RAISINS AND SPORT.

After many negotiations the 3d. cartons will be now purchasable by the public on the M.C.C. ground at the Tests and other matches right through the season.

The Nyah growers' special representations were placed before Mr. Sheehan, the caterer, and he has promised to push the sale of Raisins vigorously.

This is a good avenue for both sale and advertisement, and the most will be made of this opportunity.

**Raisin' the Voices.**

Barrackers will no doubt be pleased to get something that will fortify them in their strenuous efforts in broadcasting advice and exhortation.

The invigorating, vitalising effect of well chewed Raisins on the vocal organs and lungs will soon prove the truth of the lines—

"A handful of Raisins now and then
Will make one Voice as good as Ten!"

and no need for an "amplyfier."

### RAISINS AND ICE CREAM.

Our Sydney representative, Mr. Leo T. Pearce, whose idea of putting on the market a new confection in the form of minced dried fruits and ice cream, frozen in block or sandwich form, and which was sanctioned by the Board of Management recently, has carried his experiments a step further into the commercial stage during the month.

There is every possibility of a Sydney ice cream company taking the idea up on a substantial scale in the near future.

The result of Mr. Pearce's experiments is being awaited with interest, and there is every reason to hope that it will be an unqualified success.

The combination of high grade fruits of the finest quality and good ice cream will be a novelty that should "take on" exceedingly well, and it will be most pleasing to the palate, adding nourishment as well as flavor.

In Melbourne, the Raisin-nut mixture, first introduced by Mr. Alan Edmunds at the two vitamine cafes run in the Melbourne Town Hall, has been taken up by a Melbourne firm, and already is proving most popular these hot days in "Raisin-nut sundaes." This augurs well for the success of this idea in Sydney.

### Dried Fruits Organisation.

Under the South Australian Dried Fruits Control Act, a Board has been appointed as follows:—Messrs. N. Salter (Chairman), H. G. Howie.

Nominations have been called for persons qualified to sit on the Federal Control Board, also on the Victorian State Dried Fruits Control Board.

### Battlers and Side-Lines.

What's a "battler?" did you say. Well, he's a man who in a moment of aberration chose dried fruit growing as a means of earning a crust, and then finding that it earned him a crust and nothing more, decided to give something else a fly "between the rows" (pronounce it any way you like and you get me).

One of them I know (a bit of a shrewd head), is growing spuds—along latest American lines. He can't be sure of being able to pinch enough water to irrigate them so he has planted alternate rows of onions and spuds. Brilliant idea—the lachrymatory properties of the tearful bulbs acts on the weepy eyes of the spuds—and makes them self-irrigating.

Another one a few blocks from me has taken on chooks, and is doing fine with eggs, "hen-fruit" he calls 'em! The success of this battler's brainy idea is phenomenal. He has little trap-doors under all his nests, and when the chook lays an egg it drops through into a basket underneath. When the chook turns to view its finished job, its surprise can better be imagined than I could describe it. Anyhow, she invariably wears a look that seems to say, "Dear me, I must have been mistaken," and she sits down to lay another. He never lets them lay more than the bare half dozen, which pays him handsomely. Of course, the wear and tear on the hen is considerable, and they don't last long—he's never had any die of old age—mostly they snuff it through eggshaustion. And I don't blame 'em. All the same, I wish the battlers luck. They've got the real pioneer spirit and brains as well.

Edward Jacobs
& Sons
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# Victoria

### VICTORIAN FRUITGROWERS' CENTRAL ASSOCIATION.

THE monthly meeting of the Victorian Fruitgrowers' Central Association was held at Melbourne on January 15th. Mr. J. W. Bailey presided. There were also present:—Messrs. Grant, Tully, Aspinall, Thiele, Mock, Thomas, Foster, Hatfield, Lang, and the Secretary, F. H. Burbury. An apology was received from Mr. V. R. McNab.

**Prices for Plums.**—It was reported that factories were paying £8 per ton for some varieties of Plums, and higher prices for better qualities.

The Secretary reported that insufficient support had been forthcoming to call a meeting regarding the proposed Plum pool.

**Export of Pears.**—Mr. W. J. Foster said it was desired by Goulburn Valley growers to export 10,000 cases of Pears, the Government paying the expenses, the growers to find the fruit.

Growers from southern districts said supplies would be available if necessary to fill a chamber.

Mr. A. F. Thiele urged that growers take this matter into their own hands. Their previous experience with the Government in shipping Pears had been unsatisfactory. A "Pear Committee" should be formed to go into this matter with the fruit shipping agents.

Messrs. Lang and Bailey said that even delicate Pears like Williams had carried safely under "Somerset" conditions.

It was decided that a sub-committee be formed consisting of Messrs. Lang, Thiele, Vear, Mock and Foster to go into the matter of arranging "Pear boats" during March for such varieties as W. Cole, B. Bosc and Josephine.

**Pears for Tasmania.**—Mr. Foster said that the shipping strike had caused a cessation of export of Pears and other fruit to Tasmania, causing congestion on the local market. It was decided that a deputation wait on the Prime Minister to urge that space be provided in the ships chartered by the Government for fruit supplies.

**State Fruit Advisory Board.**—Mr. Bailey reported that at a meeting of the State Fruit Advisory Board it was notified that the British Empire Exhibition at Wembley would be reopened, and that fruit was desired from growers for display there. The Board would endeavour to collect it. With regard to selling fruit by the dozen instead of by the lb., it was hoped that this would be brought into operation simultaneously with the grading regulations.

Mr. Aspinall stated that owing to the unfavourable season, inspectors should be instructed to pass fruit of a lower grade this year.

**Export Grades.**—Mr. Thomas drew attention to the export from U.S.A. of "domestic" grade Apples, of a similar quality to what Australia had termed "blemished." It was important that this matter should be borne in mind.

**Orchard Registration.**—It was reported that the Minister for Agriculture would have this matter under consideration next session.

**Control of Export.**—Mr. Bailey reported that a draft Bill had been prepared for the control of the export of Apples and Pears. Nothing could be done this season, but the matter should be discussed in all its bearings for action later.

Mr. J. H. Lang said that in the covering letter with the draft of the Bill, it was stated that the proposed Bill was "modelled on the lines of the N.Z. Act," but it appeared to him that the same could be said of the Rolls-Royce as compared with a Ford. In other words, a compulsory co-operative company was to be formed with six directors—over one of which the shareholders had no control, i.e., the one appointed by the Government.

It was decided that a meeting of Apple growers be held on the morning of the next Council meeting in

February, to discuss the new proposed bill.

**The Sugar Embargo.**—Mr. W. J. Foster said that in New Zealand the price of A1 sugar from the Colonial Sugar Refining Co. was £10 per ton less than the price in Australia. He moved—

**That the Victorian Fruitgrowers' Central Association expresses its bitter disappointment at the action of the Commonwealth Government in renewing the sugar embargo, considering that its operation is detrimental to the best interests of the fruitgrowing industry.**

Mr. Tully seconded the motion, which was supported by several speakers, and carried unanimously.

---

**A Good Crop of Apples and Pears.**—The proprietors of the Two Bays' Nurseries and Orchards Pty. Ltd. report a good crop of Apples and Pears at their large orchard property at Moorooduc, Vic. They expect to harvest this year about fifteen to twenty thousand cases of good clean fruit; the bulk of which will be stored in their own cool store recently erected on the property at Moorooduc.

---

The caller, who was neither youthful nor of prepossessing appearance, anxious to gain the confidence of the son of the house, remarked pleasantly, "Why, Bobby, how grown up you are! But still, you are not too old to kiss, are you?"

"No," said Bobby, with conviction, "but you are."

**Presentation to Mr. A. V. Lyon, of Mildura.**—At a recent meeting, convened by the Merbein Fruitgrowers' Association, Mr. A. V. Lyon, B.Ag.Sc. (Scientist in charge of the Research Farm), was made the recipient of a handsome travelling bag as a token of appreciation and esteem. Mr. G. L. Hardie, who made the presentation, said that the district residents had learned to appreciate the services of Mr. Lyon in his appointment as scientist, and they valued his friendship highly. They had always found him so ready and willing to assist them in every possible way.

In accepting the presentation, Mr. Lyon, who was greeted with prolonged applause, thanked those responsible for their kindly thought, and said he would always be glad to assist the growers in any matter which lay within the scope of his power.



A modern tractor fiitted with commercial wheels for road use, it is shown hauling a trailmobile in Messrs. Bisdee Bros. Orchard, Bagdad, Tasmania.

## TASMANIA.

### Tractor and Load Hauler.

We publish on this page an illustration of a Fordson tractor fitted with commercial wheels for road use hauling a trailmobile built to take a 2½ ton load. This is being used by Messrs. Bisdee Bros., fruitgrowers, Bagdad, Tasmania, for hauling fruit from their orchard to the co-operative packing shed, a distance of four miles. Messrs. Bisdee Bros. state it is a most successful job, and carries the loose fruit over a fairly rough road landing it in excellent order. The load on the trailer in the picture is 101 cases.

## AUSTRALIAN FRUIT EXPORTS.

Preparations are now in full swing for the 1925 fruit export season.

Every care is being given to the quality of fruit to be packed, as it is recognised that good fruit well packed should bring a payable figure on the English and Continental markets.

A preliminary estimate of the export this season is as follows:—

| | |
|---|---|
| Tasmania .. .. .. .. .. | 1,000,000 |
| Western Australia .. | 250,000 |
| Victoria .. .. .. .. | 250,000 |
| South Australia .. .. | 30,000 |
| New South Wales .. | 30,000 |
| | 1,560,000 |

At the time of going to press we have not the full shipping programme from all the States. However, the movements of vessels carrying fruit from the mainland will be noted from the following, which gives the sailing dates from Melbourne:—

| Date. | Ship. | Port. |
|---|---|---|
| Feb. 17th. | "Mooltan," | London. |
| „ 28th. | "Asphalion," | Hull. |
| Mar. 5th. | "Otira," | Hamburg. |
| „ 5th. | "Otira," | London. |
| „ 7th. | "Ulysses," | Liverpool. |
| „ 10th. | "Themistocles," | London. |
| „ 10th. | "Themistocles," | Hull. |
| „ 17th. | "Maloja," | London. |
| „ 28th. | "Aeneas," | Liverpool. |
| Apl. 2nd. | "Moreton Bay," | London. |
| „ 2nd. | "Beltana," | London. |
| „ 7th. | "Oronsay," | London. |
| „ 13th. | "Mongolia," | London. |
| „ 17th. | "Balranald," | London. |
| „ 21st. | "Ormuz," | London. |
| „ 29th. | "Jervis Bay," | London. |


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Grenfell St., Adelaide

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And Dunedin

# New South Wales

### Bunchy Top in Bananas.

### What of Resistant Stocks?

*(By Our Correspondent)*

FRUITGROWERS in New South Wales are keenly interested in the investigational work being carried out in Queensland by the Control Board, and the Board's second progress report shows that valuable information is being obtained.

Gerald Da Costa




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Apple Warehouses:
Church Passage, Spital Square, London, E.1.
3, 4 and 5, The Arcade, Borough Market, London, S.E.1.
G.N.R. Potato Market, King's Cross, N.1.
18, Stanley Street, Liverpool. (Facing Commercial Sale Rooms.)
Deansgate, Manchester.
17, Humber Street, Hull.
Southampton Docks, (Facing No. 45 Shed).
202/4, Franklin Street, New York, U.S.A.
South West House, Greenmarket Sq., Cape Town, South Africa.

The report covers the period from August to November inclusive, and expresses the belief that the most practicable thing than can be done at present is to **find resistant stocks.** Whilst the Board is not willing to express a definite opinion that the disease is one having its origin in the roots of the plant, as any such expression would be premature at this stage, yet it can be assumed that the enquiries appear to be leading to that opinion.

It is suggested that resistant stocks may be found in Fiji, where Bunchy Top has been known for many years, and where the Banana plants have developed such resistant properties that the disease cannot be said to threaten the existence of the industry. Unfortunately, however, the investigations in Fiji have called considerable attention to another disease, "Sigatoke," which is considered in Fiji to be worse than the dread Bunchy.

This particular aspect has caused the report to state "Under any circumstances, it appears that the importation of Fijian stock to the Australian mainland would be foolhardy and quite unjustifiable." Experiments with Fijian plants in Bunchy Top soil will probably be carried out at Peel Island, with a view to determining the resistant properties of these plants.

The report also states that in view of the seriousness of "Sigatoke" in Fiji, nothing less than the complete embargo on Fiji Bananas is needed to protect the Australian Banana industry.

### New Quarter Bushel Case.

A new regulation under the Fruit Cases Act 1912, has been gazetted, by which an extra quarter-bushel case has been added to the list of cases already prescribed under the Act. The new case is admirably suited for the distribution of small quantities of the larger fruits that cannot be packed in the old Cherry box. The measurements are 18 x 5⅞ x 5¼ inches. The box can be economically made, as it is just half the size of the half-bushel Grape case, and the timber is of the same size.

### Street Barrows in Sydney.
### Proposed Removal.

The Traffic Department (Police) has for some time been opposed to the continuance of so many licensed barrows on the plea that they are an obstruction to our already overcrowded streets, and the policy has been to gradually cancel all the stand licenses. The City Council has strenuously opposed any reduction in the number of approved stands, on the grounds that a stationary barrow constitutes less danger and obstruction to the traffic than an itinerant hawker's barrow. The Deputy Town Clerk, in a report, said that the advantages of the stands were the definite location of each licensed barrowman, and the protection of the public in the purchase of fruit, for complaints were always investigated promptly and necessary action taken.

The notice given to several barrowmen has been extended until the end of the month, in the meantime the City Council seems determined to do its utmost to obtain a modification of the policy of the Police Department.

The fruitgrower is interested in this matter, and the efforts of the City Council are appreciated. The Council is not entirely disinterested as the barrows constitute a source of revenue to the Council to the extent last year of £9,000, and this fact has no doubt influenced the Council in its opposition to the police policy of gradually cancelling all the street licenses.

The sale of fruit from the street barrows of Sydney has reached considerable proportions, and the good work done by the Fruitgrowers' Association in the past can hardly be estimated. It can safely be said that for many years the purchase of fruit from wandering barrows was synonomous with "bad bargains," as it was the exception rather than the rule to get anything like a fair deal.

During the last four years the position has changed, and to-day we have in the barrows a definite link in the distribution of fruit. The stands being of a permanent nature, are made to look attractive, and the barrowman is keen to give the public a square deal, and so build up a regular clientele. It is impossible to form any accurate idea of the sales by the barrows, but it has been said by those in a position to judge that it may be estimated at about 30 per cent. of the total retail sales of Sydney.

This is an important matter to the grower as the removal of the barrows

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SULPHATE OF AMMONIA, throughout the World, has *always* enjoyed a fair measure of popularity, as a source of the supply of nitrogen to plant life. RECORD Sales during the current season indicate its Australian reputation was *never greater*, and it may be fairly termed

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from the city streets would undoubtedly have a restrictive effect on the general consumption, for although the barrows have not made any appreciable difference in the price of fruit, they have without question spread the sales. There seems to be a general idea amongst the public that fruit from barrows should be about half the price of that bought from shops, but the fact that the barrows pay a high rental to the city council seems to be entirely overlooked.

---

**Apple and Pear Grading Regulations. Commonwealth Standards Ridiculed.**

The long fight put up by growers' organisations has borne fruit, and with the Plant Diseases Act on the Statute Book of N.S.W., the Government at last has the power to impose grading regulations.

There is a practical unanimity of opinion amongst all sections, not only of the industry but of the community, as to the absolute need of standardising the marketing of fruit under some form of grades, but there is not the same unanimity as to the details of the grades. The 1924 Interstate Conference of Ministers for Agriculture, held in Sydney last May, recommended the adoption by the States of the Federal regulations.

This matter formed the subject of discussion at the 1924 Conference of the Fruitgrowers' Federation, held at Bathurst in June last, and it was unanimously decided to support the imposition of similar regulations to those in force in Oregon, U.S.A. A deputation from Batlow waited on the Minister for Agriculture (Capt. F. A. Chaffey, M.L.A.) on the 8th January to urge the immediate adoption of the grading regulations recommended by the Fruitgrowers' Federation of N.S.W.

The deputation was introduced by Mr. R. T. Ball, M.L.A. **Mr. A. E. Herring declared that the Federal Regulations were quite impracticable.** They provided for a first grade, which must have no disease at all, and if one Apple affected by Black Spot was found, the grower could be fined £100, and his consignment confiscated. The Oregon Regulations allowed a margin of 10 per cent. for tolerance. The second grade of the Commonwealth stipulated that 90 per cent. must be free from blemish, which put this second grade on a level with Oregon's first. This grade is really the only one of the Commonwealth's that it is possible to pack under. The third grade insisted upon 70 per cent. of unblemished fruit, which it was declared is ridiculous, as all unblemished fruit should be in the first grade.

Mr. N. H. Case expressed the view that N.S.W. growers are penalised because Sydney is often made the dumping ground for inferior fruit from other States. The regulation, as suggested, would be binding equally upon N.S.W. growers as on any others. They favoured regulations on the lines of the ones in force in Oregon, in which State 47,000,000 bushels of Apples had been marketed under these grades.

Captain Chaffey, in reply, stated that he quite agreed that grading regulations were necessary, not only in the interest of growers, but also in the interest of the consuming public, but he wanted to be consistent, and did not want a multiplicity of grades, as the local grades adopted by each State should be consistent with the Commonwealth grades adopted for export. The recently passed Plant Diseases Act gave the State statutory powers to impose grading regulations, and also for the prevention of the sale of "topped" fruit in the shops and barrows. The Minister referred to the dumping of inferior fruit in Sydney, stating that as soon as it was brought under his notice he had it stopped.

Finally, it was agreed that the Minister would submit the matter to the N.S.W. State Fruit Advisory Board at its meeting on the 22nd January, and that a conference would be called for the preceding day of representatives as nominated by the Fruitgrowers' Federation of N.S.W. The Minister promised that following the advice thus obtained, the matter would be dealt with immediately, and could be gazetted within a month of that meeting.

# Prune Growers' Association of N.S.W.

### Annual Conference.

### Over Production is Threatened.

THE Second Annual Conference of the Prune Growers' Association was held at Cootamundra on the 4th January. The Conference was attended by representatives from Batlow, Griffith, Koorawatha, Junee, and Young, and also by a number of returned soldier settlers from the Young district.

Mr. E. P. Fleming, Under Secretary for Department of Lands also attended. Mr. J. M. Dixon, President, took the chair.

The Secretary (Col. Herrod) submitted the reports which were adopted. The financial statement showed a credit balance of £150.

**Standard Boxes.**—Mr. Thompson asked what had been done in reference to standard boxes.

The President pointed out that the only two boxes authorised by the Association were 10lb. box and the 28lb. box, and as far as was known all the Prunes marketed in this State were marketed in these two boxes, excepting a quantity that had been sold in 2lb. tins and a certain number in cartons.

Mr. Dixon said that fully half his Prunes had been sold in 10lb. boxes at ½d. per lb. more than those packed in 28lb. boxes.

Mr. Saddington said that the demand for the 10lb. box was rapidly increasing. Mr. Hinton stated that after the adoption of the 10lb. box the demand increased. There is also a certain demand for the 2lb. tin although the carton is an ideal package. Most grocers however preferred 10lb. or 28lb. boxes.

**Advertising.**—Mr. Thompson referred to the great possibilities in the Prune industry if we could induce greater consumption and considered it necessary to educate the people to use more Prunes.

Mr. Norrie did not believe in advertising at present because the production was not yet equal to consumption.

Mr. Hinton said that he had given considerable thought to the matter. The chief difficulty of placing printed slips in the packet or box of Prunes seemed to be getting suitable paper which would not spoil the look of the Prunes, and yet would take the printing. The only paper which gives the Prune its due is a waxed paper. He found grease-proof paper was apt to take a certain amount of gloss off the Prune, it also shows the imprint of the Prune and leaves the surface dull. The top row attracts, and therefore needs to look its best, but waxed paper is practically unprintable. He thought the Association might consider some scheme of a nature whereby the shape of the Prune could be cut out of the paper placed on the top of the box.

Mr. Hinton said that every carton had a recipe inside it. Contrast attracts the eye, and he suggested a colored sheet of paper with a large dark Prune showing through.

No resolution was carried under this heading as the general opinion seemed to be that any advertising to increase the consumption of Prunes at this stage would only increase the importations from overseas.

**Prices.**—The general question of prices was discussed at some considerable length, the chairman explaining the reasons for the reduction that had been affected during the year. Mr. Dixon pointed out that the reduction was a very small one of ¼d. per lb. and only on two grades. This step was found necessary owing to American Prunes being landed at 7½d., and also to the fact that the A.D.F.A. had reduced their prices. The wisdom of the reduction was evident by the fact that sales were effected which resulted in practically clearing the bulk of the stocks.

There had been some misunderstanding early in the year as to what was the proper position of the executive in regard to price fixing. Mr. Dixon explained that the committee fixed the minimum price only on an f.a.q. basis and if growers were able to sell at a higher price they were at liberty to do so.

Mr. Thompson preferred to ask a price from the public which would give a reasonable return and no more, as it would be unwise to sell at a price which would lessen the consumption.

Mr. Buchele said he had spent a lot of time investigating prices. Of Batlow growers, over 75 per cent grown were other than D'Agen. For every ton of D'Agen there were 6 tons of other Prunes. The price of 10/20 Silvers were fixed at 1/1, while agents in Sydney had sold 30/40 Silvers at 1/6. This was mainly the reason why Batlow growers had nominated an additional agent, Salmon & Co. who had handled large Prunes very successfully for several years.

Mr. Buchele said several of the largest growers of Batlow would not join the Association because the price for large Prunes was fixed too low, and they could only sell to two agents. In Batlow 95 per cent of the growers this coming season were now in the Association and there were only five small growers who had not yet joined.

Mr. Case said that while it would be very advisable if a scheme could be devised so that a Batlow grower could be represented on the prices committee, it did not seem quite possible at present. Mr. Case thought however with the full co-operation of

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A user states:—
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Don't Delay! Remember the 1st weeks spraying pays for your pistol
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the agents on the committee the position should be easier.

**Importations.**—The secretary read a copy of a letter submitted by the Association to the Interstate Conference of Ministers for Agriculture held in May last. As a result of the representations made, the conference of Ministers for Agriculture had made representations to the Federal Government, and the Commonwealth had agreed to investigate every shipment of Prunes coming into the Commonwealth to see if the provisions of the Anti-Dumping Act could be enforced.

The secretary also reported having been in regular communication with the Australian Trade Commissioner in the U.S.A., from whom reports are periodically received as to prices in America. The information to hand to date disclosed that Prunes were being sold in America cheap enough to allow them to be sold in Sydney at 7½d.

**Production.**—A very lengthy discussion took place on the question of the position confronting the industry owing to the largely increased areas planted to Prunes.

A number of the visitors from the Returned Soldiers' Settlement spoke on this question.

Although accurate figures are not yet available the approximate figures submitted to conference show the total production of the Commonwealth to be at present in the vicinity of 600 tons, and a conservative estimate of production under present planting to come into full bearing was placed at 10,000 tons. As there would appear to be little prospect of such an enormous quantity being sold profitably, the question causes some anxiety to growers.

At this stage Mr. E. P. Fleming, Under Secretary, Department of Lands, addressed the meeting. Mr. Fleming stated that in his position as Under Secretary for Lands he was particularly interested in Returned Soldiers' Settlements and particularly those growing Prunes, mainly at Young, and in a minor degree at Batlow and Kentucky. Griffith was not under his control. Young had 1,083 acres under Prunes, he was not responsible for the scheme of growing so many Prunes but it would appear that a problem is confronting us and he would do his best to co-operate in any movement likely to solve the problem. He estimated the crop for this season at 12 tons of dried Prunes rising annually, reaching 2,200 tons in 1933, these figures being much greater than the present output in the whole of Australia. The first problem was as to the best method of treating Prunes and the second marketing. The problem of drying was small at present and it could be overcome, and information is being sought as to the best methods, whether by dehydration or sun drying, but the selling problem was the most important, but although the question has been studied, nothing hopeful had been seen which was likely to solve this main problem. He was trying to help the Association, and would do his best to co-operate with any legitimate request made.

Mr. Case said that in the interest of Returned Soldier Settlers, this matter had to be thoroughly and impartially discussed at once before the orchards come into full bearing.

Mr. Thompson stated that as the Government was responsible for the position, it was also morally responsible for assisting growers out of the position, and he would like inquiries made as to whether it was wise even to cultivate the trees already planted.

It was decided on the motion of Messrs. Case and Thompson,—"That this Conference realising the serious outlook brought about by the excessive planting of Prunes on Returned Soldier Settlements, urges the State Government to appoint a committee of inquiry to investigate the whole question of the Prune industry, and report as to its prospects."

**Election of Officers.**—The following were elected into office for the insuing year,—

**President.**—J. M. Dixon

**Executive.**—N. H. Case, J. Thompson, J. L. Norrie.

**Secretary and Treasurer.**—E. E. Herrod.

**General.**—His Worship the Mayor of Cootamundra (Mr. Bardsley) attended conference and extended a civic reception on behalf of the Council and the citizens and residents of the district. Mr. Bardsley expressed pleasure at Cootamundra being selected as a place of meeting, and trusted that the difficulties confronting Prune growers would be overcome.

Votes of thanks were accorded Mr. E. P. Fleming, the President Mr. J. M. Dixon, his Worship the Mayor, the Councillors and the people of Cootamundra, the Executive and the Secretary.


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| Charles Martin, Yackandandah | Prunes |
| Swallow & Ariell Ltd. Port Melbourne. | Carrots Turnips Cabbages, etc. |
| Woorinen Co-op. Pack. Shed, Woorinen | Sultanas Raisins etc. |
| Aurora Pack Co. Pty. Ltd., Irymple. | Sultanas Raisins etc. |

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**157 Queen Street,**

Melbourne, Australia.

**STONE FRUITS**
**CITRUS TREES**
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**A Good Start means Everything!**

*BEFORE PURCHASING* send for Lasscock's Catalogue and prices. These South Australian grown trees are unsurpassed for hardiness, healthiness, and vigor. They will jump from the start and bring profit to the grower. Our stocks are excellent and prices right. Special attention is given to packing.

**LASSCOCK'S NURSERIES** Henley Beach Road, LOCKLEYS, STH. AUSTRALIA

## MURRUMBIDGEE IRRIGATION AREAS.

Leeton, 18/1/25.

**Apricots.**—The growers are particularly satisfied at the result of the Apricot crop, and their transactions with the Leeton cannery have been of the most smooth character. From the public point of view this fruit has also been satisfactory, as the quality has been well sustained. The plantings of Apricots will go on increasing, and of the Trevatt type, as this type has proved the best marketing kind on the areas.

**Peaches.**—The freestones are gradually getting less each year, through a number of trees being pulled out, and the only kinds of this class remaining on the areas are the Elberta, Crawford and Blackburn. The freestones are being re-placed by the Pullar, Phillip, Golden Queen and Levis Clings.

The principal output of freestones is from the Elberta variety, and seeing that fully thirty per cent. of this Peach was affected by the Curl Leaf, the returns will be meagre in this direction. The Clings were not affected so much as the Elberta by the Curl Leaf, as only 10 per cent. were affected in the former class of fruit.

**Currants and Sultanas** have had a bad time—the Sultanas particularly having been liberally visited with Black Spot and Downy Mildew.

**Apples and Pears.**—What plantings there are show up really well. The trees are heavy with fruit, and the quality and condition are excellent.

**Prunes** show a reasonable crop, and on account of a scarcity in the European yield, growers are looking forward to decent prices.

**Fertilising** is a matter that has not received its proper attention by any means on this area, but the activity now being shown by the State Agricultural Instructors in this direction is likely to be followed up by the settlers. This is a phase that should be ever present with the local Fruitgrowers' Association, and statistics should be registered from the various kinds of experiments for the growers' benefit.

**Leeton Cannery.** — The Cannery found no difficulty in procuring the necessary female labor for the Apricots, Freestone Peaches and Plums, and it is not likely that there will be a female labor shortage to deal with the bulk of the cannery's work, namely, the Cling Peaches.

**Apricots.**—The quantity processed by the cannery this season was 1,100 tons, being about three hundred tons above the tendering.

**Peaches.**—The freestones will be all cleaned up within the next few days, as also the earliest of our Clings—the Tuscan. The usual very busy time of the cannery will be from the commencement of March, when the Phillips, and afterwards the Pullar's Clings, arrive at the cannery.

**Plums.**—100 tons will about cover the cannery's processing. The quality and condition are above the ordinary standard, slightly. Although there are grown on the area a fair quantity of Prunes, Almonds, Nectarines and Apples, the cannery has not touched these fruits yet. Later on there is every possibility of it doing so. Pears, it of course, cans, but labor so far, especially the female labor, fights shy of this fruit at the factory.


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## GOSFORD.

### Heavy Citrus Crops Anticipated.

Writing from Gosford on the 23rd December, 1924, Mr. W. E. Kirkness states that this district is relinquishing the cultivation of stone fruit for citrus fruits, principally Oranges being planted in the varieties: Navel, Valencia and White Siletta. It is anticipated that the coming crops will be heavy, present appearances indicating a greater yield than was gathered at the last two seasons. Last year there were approximately 165,000 bushels of citrus fruit packed by the various packing houses, and about 20,000 bushels from outside growers.

Mr. Kirkness is of the opinion that the district generally is being systemised in method, the reason being that good orchardists are succeeding, whilst careless growers realise that slipshod work does not get them anywhere. There is much new clearing and planting going on this season.

Old Gentleman: "Little boy, do you know who I am?"

Little Boy: "No, sir. But mother's inside; perhaps she can tell you."




## Poultry Notes

### BREEDING.

FOWLS should be encouraged to moult quickly. They should receive a liberal ration of nourishing food, but this should be reduced towards the end of the moult, so that the birds will not be over-fat when they should recommence laying. Some oil cake in the ration, or if the number of fowls are limited, some linseed a couple of times a week helps them through.

* * *

The feeding of an unbalanced ration to adult stock may produce liver disease. This is often brought on by the feeding of too much maize. Barley should not be extensively fed either. Give plenty of green feed mid-day and meat scraps or soup in the mash twice a week.

* * *

Lice are often a serious menace at this time of the year. They irritate the fowls, exhaust their vitality, and reduce the egg yield. Amongst chickens, lice are probably the direct or indirect cause of more deaths than disease. Dust baths are a good means of combating it, and should always be before the fowls—dry in winter and moist in summer. Keep the perches clean by frequent spraying with phenyle solution and the nests with insectibane.

* * *

### LEG WEAKNESS IN CHICKENS.

Leg weakness is one of the worst evils that poultry breeders have to contend with in the rearing of chickens, and many attempts have been made to definitely settle the cause of the complaint, but only with partial success. It is probably the result of a combination of influences. A writer in "The National Poultry Journal" puts forward a theory which may assist breeders in dodging or minimising the complaint. He maintains that leg weakness is caused by the lack of something the chicks obtain from the ground. He says:—

"It may be that it is grass, natural animal food or something else the chicks obtain from mother earth. Probably it is a combination of the lot. I have noticed that the chicks which suffer from leg weakness are those which do not go out of doors. Few poultry keepers trouble to control this point. They content themselves with pushing the chicks out once or twice, and are not in a position to say whether the chicks which contract leg weakness ever go out of doors after the first few lessons they receive.

"I would suggest out-door feeding and watering for ten days after the chicks are three days old. During this ten days the chicks will learn that they can find tit-bits outside, and no further trouble from leg weakness should be experienced.

"Early this season during the bad weather I had a brood which was rather badly attacked by this trouble. Fortunately, before it reached the chronic stage, we had a few successive days of warm sun. I forced all the chicks out of doors and kept them there in the sun for several hours at a time.

"All the cases of leg weakness recovered, and now, were it not that the ailing chicks were marked, it would be impossible to detect them amongst the brood.

"I think that if breeders would treat leg weakness as a sign of lack of stamina we might do much to get rid of the trouble. In a brood of, say, 300 chicks, 30 suffer from leg weakness. These chicks have had exactly the same food and opportunities as the others, yet they contract leg weakness. The cause may be due to some constitutional defect, or to the fact that the chick did not grasp its opportunities. The failing is either physical, or, shall we say, mental. Anyhow the chicks did not thrive as the others did, and that seems to me to be a very real reason why it should not be allowed to propagate its kind, even though it may later appear to be as hardy and vigorous as the rest.

"Few, if any, diseases are inheritable, but very often susceptibility to disease is inherited, and it would be well for poultry-keepers in the industry if all possibilities in this direction were avoided. Let the leg weak chick be marked, and its future confined to performance in the laying shed."

## Bee-keeping Notes

EVERY orchardist should be able to keep a few hives of bees which will furnish a substantial return for a minimum of effort.

Italian bees will find enough suitable flora in most districts to work over a 2-mile radius.

* * *

From 6 to 12 colonies should not be too much for the average orchardist to attend to in his spare time.

* * *

Those about to introduce bees for the first time should get a copy of the Departmental bulletin obtainable from the Secretary of Agriculture, Melbourne. Price, 1/6.

* * *

If any swarms of wild black bees are captured, an Italian queen should be purchased and introduced into the colony after removing the black queen.

* * *

Italian queens can be obtained from breeders for about 6/- each. They are sent through the post in specially constructed cages.

* * *

Frame hives should be used. These must be square, and 19 inches long x 9⅛ inches deep. The inside should then be long enough for the frame to fit in loosely.

* * *

The quantity of honey produced by a colony will depend on the variety of the bees and the flora within their range.

* * *

There is always a good demand for comb honey, and this is the best way for beginners to dispose of supplies.

* * *

Small frames are used for this purpose. They are 8 x 8 inches square, and are secured inside the larger frames with the aid of thin wires fixed round the top bars. When the small frames are full of sealed honeycomb, each one will contain from 3 to 4 lbs.

* * *

If the large frames are used, the honey-comb can be cut out with a warm knife into squares of 1 to 2 lbs. in weight.

* * *

Wrap the honey in the comb in glazed butter paper, through which the honey will not soak.

* * *

Bees will produce more comb honey in shallow long frames than in any other way.

* * *

More honey will be secured by the use of an extractor, but the price will only be about half that obtained for comb honey.

* * *

Although the bees will build their own combs they will produce from 70 to 100 per cent. more honey if a sheet of foundation is attached to each frame. These are obtainable from any apiary supply store.

# Eggs Plentiful Now— But what about Next Winter ?

THE past is invariably forgotten in the present; especially if the latter has any special cause associated with it for rejoicing or for inducing satisfaction. In the



fields of wool and wheat, Graziers and Farmers throughout New South Wales are joyfully counting upon bountiful harvests. The despair of the last season's droughts, and of the hardships incidental thereto have all been relegated to the limbo of the past, and Hope, born of the anticipation of record yields and prices, reigns supreme.

Poultrymen, in point of quantity of egg production, at any rate, are also experiencing the keen joy and satisfaction of re-action. The "off" season, with its worries of moulting, the spectre of jaded and listless birds, of a scarcity of eggs—just when a reasonable production would considerably swell one's banking account—have all been temporarily dispelled. The word "temporarily" is a very apt phrase in this connection. Without unduly stressing it, it serves as a reminder to prepare now, not wait for the inevitable lean months. This can and should be done; it is an easy matter, too. It means using Karswood Poultry Spice. Given once a day (the cost being one half-penny per day for twelve birds) —well mixed with the soft mash (wet or dry) it will strengthen and tone up the birds' constitutions, and thus offset the strain of continual laying; makes the moulting period shorter and much less severe—and this is the big point, will be a big factor in inducing a reasonable supply of winter eggs.

Read the accompanying testimonials, and see what others have accomplished by the use of Karswood Poultry Spice, then use it for the same results yourself.

C. A. House says:—

"In my opinion, and I speak after a severe test, fanciers may use Karswood Poultry Spice with confidence. Unlike the general run of poultry spices, it is not heating. Its chief ingredient is one of the best tonics known to mankind, and the result it produces is obtained not by overheating and excessively stimulating the body, but by enriching and toning the blood, bringing all the nervous system into a state of healthy vigour and thus, by natural means, giving a largely increased egg production.

"After a long series of tests, specially conducted by Mr. Will Hooley, F.R.S., the chief expert of the 'Poultry World' (of which I am the Editor), it was found that not in one single instance could any ill effects be traced to the use of Karswood Poultry Spice, but that, on the contrary, nothing but good had resulted, the whole of the birds being in better condition than at the beginning of the test. This was shown, not only by the activity and the virility of the birds, but also by the perfectly normal and natural condition of the internal organs of the bodies of a number of the birds which were specially killed for the purposes of the test.

"As to the question—'What about the differing conditions of Australia and England?' I can only say, that speaking from experience of Western Australia, South Australia, Victoria and New South Wales, it is my firm conviction that Karswood Poultry Spice should prove of equal value to the breeders of Australia, as it is to the breeders of England.

"You ask, 'Why?' Because, from what I have seen of your stock and your climate, I conclude the latter is quite as trying to the constitution of the birds as is that of England, and the use of a tonic such as Karswood Poultry Spice, given, not with every meal, but at intervals, would be most beneficial, and tend to improve the health, virility and productiveness of the stock.

"One word of caution would I give: Karswood Poultry Spice should be used according to the instructions sent out with every packet. Too much does harm rather than good. Used as directed by the manufacturers, nothing but good can result from its use."

**"Grenroy," Evans Street, Penrith.**
7th September, 1921.

Gentlemen,—

The packet of Karswood Poultry Spice I procured from your firm some time ago has given such good results that I have decided to buy a bag of it, so please send me a small bag of the Spice as soon as possible, and oblige.

(Signed) ISABEL CAMERON.

---

**"Bourree," Blacktown Road, Rooty Hill.**
Feb. 4th, 1922.

Dear Sir,—

Would you be kind enough to send me one case of Karswood Poultry Spice, the same as I had before, and at the same price. I have great faith in this food, and my fowls are doing splendidly, so shall keep on with it.

(Signed) T. R. STONE.

---

**MAKE A TEST ON YOUR OWN BIRDS.**

Go to your local Grocer, Storekeeper, or Produce Dealer. Get a 1/- packet of Karswood Poultry Spice. Try it for a fortnight or three weeks on half a dozen of these "drones." Do not expect immediate results, Karswood works naturally—it does not "force." Within the time specified, you should see a remarkable improvement in the condition and plumage of your birds, and a marked increase in their natural egg production.

---

**NOTE THE ECONOMY.**

1/- packet supplies 20 hens 16 days.
2/- packet supplies 20 hens 32 days.
13/- tin (7lb.) supplies 140 hens 32 days.
14lb. tins, 25/-. 28lb. tins, 48/-.

**"MAKES 12 HENS LAY FOR A HA'PENNY A DAY."**

If your local dealer cannot supply you, write direct to "Karswood," Box 2138, G.P.O., Sydney, or to the wholesale agents for your State:—

**AGENTS:—**

**New South Wales.** — The Coastal Farmers' Co-operative Society Ltd.; Quay and Valentine Sts., Sydney.
**Victoria.**—Henry Berry & Co. Pty. Ltd., Collins Street, Melbourne.
**South Australia.**—S. C. Eyles & Co., Currie Street, Adelaide.
**Queensland.**—Farmers' Co-operative Distributing Co., Turbot St., Brisbane.
**West Australia.**—Westralian Farmers' Ltd., Wellington St., Perth.
**Note.**—If supplied by wholesale agents direct, postage must be added to cost.

---

# KARSWOOD Poultry Spice

## Use it the Whole Year Round

## Pig Raising

THE sun-scorching of pigs which sometimes occurs during the hot months, is by no means confined to Australia, but has also been the subject of complaint by breeders in England, where a discussion on the subject has taken place through the "Agricultural Gazette." In answer to a correspondent who stated that, while he had found that the skins of the white breeds blistered, the blacks were immune, a noted authority, Mr. Sanders Spencer, in reply, states:—

"Unfortunately no proof is furnished of these statements, which are certainly not in accord with my experience in pig breeding, extending over some 65 years.

"During that rather long period I have bred pigs of well-nigh all breeds and colours, without obtaining a knowledge of the truth of the assertions quoted. Indeed, I should not hesitate to declare that in the United Kingdom pigs of a white colour, if properly bred, are no more subject to sun-scald than the pigs of any other breed. The weakness—and it is decidedly a weakness—is largely, if not entirely, due to want of care in the selection of the pigs for breeding.

"A white, or even a coloured, pig, with a sparse coat of hair and a soft, thick and porous skin, is very likely to suffer from the heat of the sun; whereas a pig with a good coat of fine, silky hair and a thin, compact skin is seldom affected.

### A Practical Test.

"This question of sun-scorch has, to my knowledge, been discussed many times. It must be nearly 40 years ago that a resident in the County of Suffolk started a discussion on the point of affirming most confidently that white pigs were unable to withstand the rays of the sun without scorching.

"A year or two previously I had sold one of my Yorkshire boars to a brother of Mr. Cobbald, who was one of those responsible for the formation of the Large Black Pig Society, and who was, of course, a strong believer in the superiority of the black-coloured pig over one of a white colour.

"When discussing with his brother the question whether or not white pigs were most subject to sun-scorch than pigs of a dark colour, he was informed that the white boar which he obtained from Holywell was not affected by the sun. To prove whether or not this immunity was general, Mr. Cobbald came to Holywell to inspect my pigs.

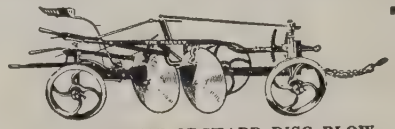

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Orchard, Vineyard and Farm Cultivation
Tractor Ploughs, Discs and Cultivators to suit every Tractor


"HARVEY" ORCHARD PLOW.

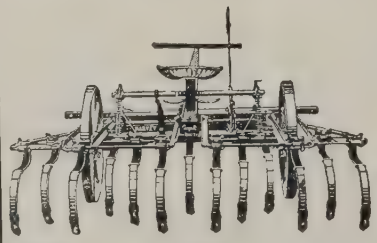

NO. 10 S.F. GENERAL PURPOSE PLOW. High Steel, Goose-neck Beam, Fixed Handles.

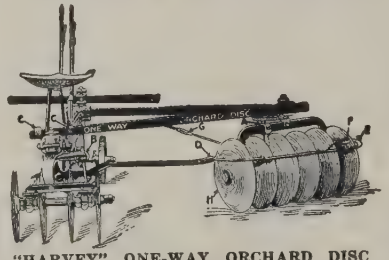

"HARVEY" GOOSE-NECK S.F. PLOW. With shifting or fixed handles. Made in 7, 8, 9 and 10 sizes.


"HARVEY" SPRING TOOTH CITRUS & ORCHARD CULTIVATOR.

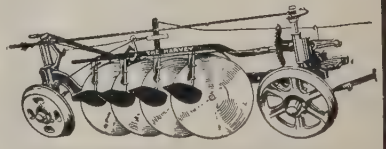

LIGHT 2-FURROW ORCHARD DISC PLOW.


"HARVEY" 2-FURROW SHIFTING ORCHARD PLOW.


SPRING TOOTH RIDING CULTIVATOR.



"HARVEY" ONE-WAY ORCHARD DISC CULTIVATOR.


4-FURROW POWER LIFT TRACTOR PLOW.

Write for Illustrated Catalogue

*Office and Works:*

D. HARVEY, *Box Hill, Melbourne, Victoria*

*Show Room:* F. R. Mellor, 440 Elizabeth St., Mebourne

"He admitted subsequently that he had carefully sought for and failed to find a single pig which had suffered from the effects of the sun. At the time there were 400 or 500 pigs on the farms, the majority of them living an outdoor life, more or less.

"This immunity from sun-scorch of white pigs when kept at Holywell was not singular, as, although I exported pigs of my own breeding to some 40 or 50 foreign countries and colonies, I seldom received any complaint of their inability to withstand the extreme heat or cold of the climate of their new homes."

---

A sow in Mr. Godwin-Courtman's Dean Forest herd of Wessex Saddlebacks, England, has had five litters in less than two years, and all the pigs have been reared, while another sow in the herd has had 73 pigs in her last four litters. A middle white sow in Col. Spender-Clay's herd has produced a litter of 20 pigs (13 sows, 7 boars) all born alive and very healthy.

**Appreciations.**

---

Maroota, via, Windsor, N.S.W.,
1/1/25.

The reading in the "Fruit World" is always interesting, and I consider the article on "The Packing and Grading of Tomatoes," in your January issue, one of the best of its kind ever published.—J.B.H.

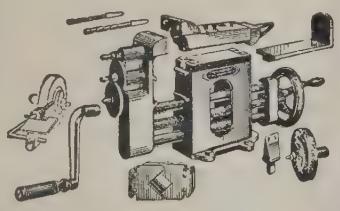
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Horsham (Vic.), 20th Dec., 1924.

I believe your paper is very useful to people in the fruit line; also you get some tit-bits and common sense wit worth repeating. I wish you and your paper success and prosperity.—J.H.M.


HERE IT IS!

*Just what YOU need for the orchard*



The famous

STEWART

"HANDY WORKER"

A strong compact combination of six most useful tools. Vyce, pipe vyce, anvil, cutting hardie, drilling jig with two drills, and carborundum grinding wheel.

**It pays for itself fifty times over**

**Price, complete, £5/15 F.O.R.**

*LET US TELL YOU ALL ABOUT IT*

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350 Spencer Street, Melbourne
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**ESTABLISHED 1819.**

JAMES ADAM, SON & CO.

*Fruit Auctioneers and Brokers*

1 TEMPLE COURT

LIVERPOOL — ENGLAND

**Consignees' Brand 361**

Pioneer Brokers of Tasmanian Apples in Liverpool.
Special Catalogues showing prices issued after each sale.

**Victorian Representative**

**W. H. ARCHER, Aberdeen House, 528-530 Collins St. Melbourne**

**Tasmanian Representatives**

**C. PIESSE & CO., Hobart, Tasmania.**

ALGEMEENE VRUCHTEN IMPORT MAATSCHAPPY

FRUIT BROKERS

(An amalgamation of the oldest and leading firms.)

**AMSTERDAM** — De Ruyterkade 39/40.

**ROTTERDAM** — Wynstraat 52 B.

**HAMBURG** — Stadtdeich 38.

We solicit consignments of Australian Fruit.

For information please apply to our representative for Australasia:

**H. G. COLOMBIE,** 115 Hotham Street, EAST MELBOURNE

Advances against consignments. Shipping Agents at all Ports—For List see larger Advert. Page xviii.

**References: Union Bank of Australia, at Melbourne, Sydney and Hobart.**

## FRUIT NOMENCLATURE.

### Pomological Society Code.

Mr. S. J. Bisdee, of Bagdad, Tasmania, who recently made suggestions in "Fruit World" relative to the Pomological Committee, has received a letter from the United States Department of Agriculture in regard to fruit nomenclature. The Department enclosed a copy of the American Pomological Society code, to which they adhere as rigidly as possible in settling problems relating to fruit nomenclature. It has been well circulated throughout the United States, and has met with a gratifying response from all quarters.

### Description of American Code.

The aim of the code is to establish a simple and clear system of pomological nomenclature that will be appropriate and stable. Accordingly, it is urged that all persons naming new varieties of fruits shall choose simple one-word names that are fittingly expressive of some character, quality, place, person or event associated with the source, time, place or origin of the variety. Names of existing varieties shall not be changed in such a way as to lead to confusion of identity, and the spelling and pronunciation of a variety name shall be the same as that of the person or place from which it is derived. A possessive noun shall not be used, and initials should not be used as a part of the noun.

A name shall not be formed by the compounding or hyphenating of two or more existing names.

Such general terms as seedling, hybrid, beurre, damson, pippin, rareripe, biggareau, should not be used.

A variety imported from a foreign country should retain its foreign name, subject only to such modification as is necessary to conform it to this code, and provided that names having a recognised English equivalent may be, but are not necessarily, so rendered. The name of a person shall not be applied to a variety in his lifetime without his consent. The name of a deceased person shall not be applied to a variety except through formal action by some competent pomological body, preferably, that with which the deceased was most closely associated.

* * *

Commenting on the Australian Pomological Committee, Mr. Bisdee states:—"I must say, I would like to see much more active steps taken in this matter than have been hitherto. The Committee is doing valuable work, I readily admit, but much of it is wasted through lack of 'push.'"

---

Joe: "Bill, what's a cosmopolitan?"

Bill: "Well, suppose you was a Russian Jew livin' in England, and married to a Chinese woman, and you had just finished an Irish stew, and you was smokin' a Turkish cigarette, while a nigger band outside was playing 'The Bluebells of Scotland,' then you'd be a cosmopolitan."


**AT LAST—SOMETHING FOR NOTHING!**

**THE PLANTERS' GUIDE.**—*An illustrated book, containing valuable information with regard to Planting, Controlling Orchard Pests, Cross Fertilization of Fruit Trees, and also accurate descriptions of practically all the leading commercial varieties of fruit trees planted throughout the Commonwealth. Sent free, postage paid, upon request.*

SEND FOR YOUR COPY NOW.

**BALHANNAH DECIDUOUS NURSERIES**

Postal address: **BALHANNAH, S.A.**

# SOFTWOOD CASES

**(IMPORTED)**

## Cut to Australian Standard Sizes

**DUMP BUSHEL**:—With 1 piece top and three equal piece side.
**UPRIGHT BUSHEL**:—With 1 piece top and three equal piece side.
**DRIED FRUIT**:—With 1 piece side and two equal piece top.
**CANNED FRUIT**:—With 1 piece side and two piece top.

**Some advantages in favor of Imported Cases:—**

(1) 1-3rd less freight than on hardwood cases.
(2) 25 per cent. rebate on rail freight for full trucks.
(3) All timber cut to exact sizes, making, when assembled, a symmetrical case.
(4) Every piece timber fit and ready for use, thereby eliminating waste.
(5) Can be supplied in shooks, or made up and branded.

**Prices on application.**

## Overseas Interstate Trading Co. Ltd.

52 Market Street, Melbourne

Phone Cent. 9110. Also King William St., Adelaide

# FRUIT GROWERS

# DECENTRALISE!

Send your consignments direct to

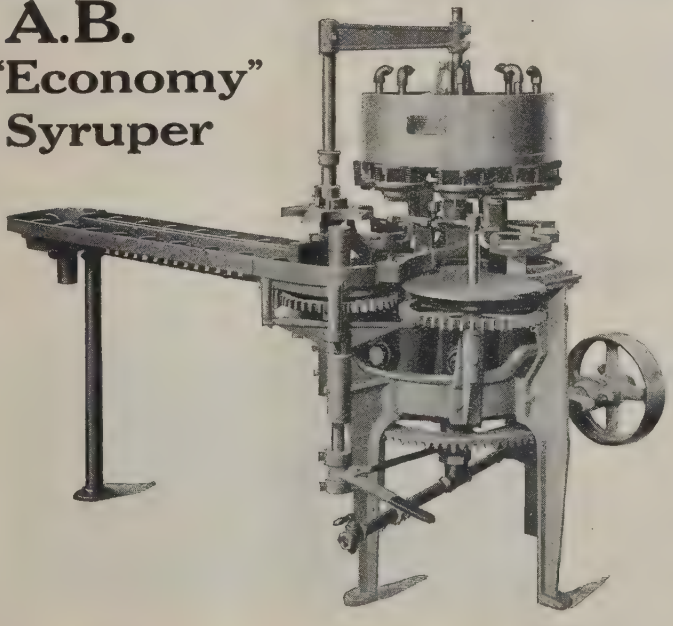
**Southampton, Liverpool, Manchester, Glasgow, Hull, Etc.**

**SIMONS (Southampton) Ltd.**

**Sole Australian Agents:**

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**A.B. "Economy" Syruper**



## This Machine . . Justifies its Name

**Insofar as it affects many savings, e.g.—**

BRUISED FRUIT.—A rubber displacement ring absolutely prevents injury while syruping; an inverted cup shape valve also assisting in permitting the fruit to stay in a heaped up position above the top of the can—two very important and exclusive features of this Syruper.

DAMAGED CANS.—A heavy star turret rounds out slightly flattened cans that might otherwise jam and be spoiled.

SYRUP.—An exclusive feature is the method of filling around the circumference of the valve with the air vent cutting off at the same time as the syrup flow, preventing flow back from the vent pipe. This feature, together with the rubber displacement ring permits the minimum use of syrup without injuring the fruit.

There are a number of these ANDERSON-BARNGROVER SYRUPERS in Australian Canneries.

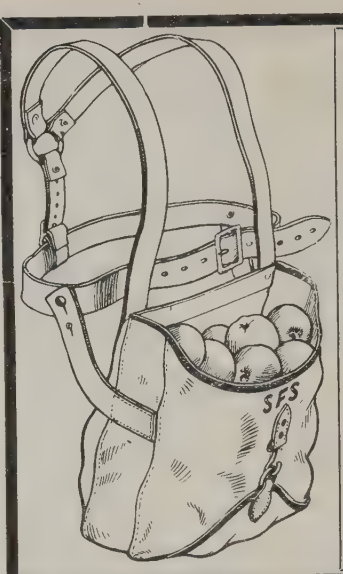
**TOMBS & HOWCROFT Pty. Ltd.** **369 Post Office Place MELBOURNE**

**Liverpool's Progress.**—We have received a statement of accounts from the Mersey Docks and Harbour Board for the year ended 1st July, 1924. The capital account authorised by various Acts of Parliament stands at £42,562,027,of which nearly £5,000,000 is unexpended. The capital was raised by the issue of bonds and debenture stock, and the revenue account shows an income of £3,300,983, including £100,000 carried to the sinking fund account. An increase of 989,130 tons has been made in the shipping entering and leaving the port during the year, the tonnage amounting to 37,148,288 tons, as against 36,159,158 tons in the previous year.

---

A budding poet stood gazing at the stars. "Ah," said his friend. "I suppose you are meditating a sonnet or a set of verses to go with the music of the spheres?"

"No," said the poet, "but it pleases me to look upward to a region where nothing is ever crowded out for want of space!"


THE FRUITGROWERS' FRIEND

**S.F.S.**

**FRUIT PICKING BAG**

FULFILS A LONG-FELT WANT.

SOMETHING BETTER FOR FRUIT PICKING AT A LOW COST.

The S.F.S. Picking Bag has been specially designed to suit the special requirements of the Fruitgrower and to provide a comfortable and efficient metho. of picking fruit.

POSITIVELY NO BRUISING. EXTRA STRONG

PRICE 17/6 — Fruit cannot pass patent flap at bottom until catch is removed. F.O.R. BATLOW, N.S.W. — PRICE 17/6

**Sunnyside Orchards Ltd.**

BOX 32 -- BATLOW, N.S.W.

*Please mention "Fruit World."*

# Wood Wool for Fruit Packing

Made in Australia by Australians for Australian Orchardists.
Support a Local Industry and secure a Wood Wool

**EQUAL TO THE BEST IMPORTED, at a CHEAPER PRICE**

This product is good color and quality and does not taint the fruit in any way.

Packed in Bales containing about 80 lbs. . . . . Secure your supplies early to avoid disappointment.

*Prices on application to the Sole Agents for Victoria:*

POSTAL ADDRESS— **42 William St., Melbourne**

**F. CAVE & CO.** **Wholesale Fruit Merchants WESTERN MARKET**

**Better Packing MEANS Better Prices**

# The Guider Grader

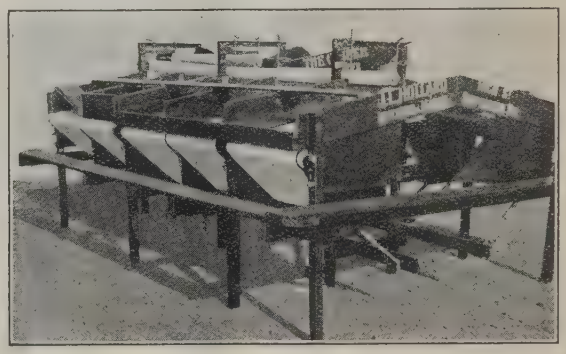
Is the Latest and Best

Purchasers write that the Machine has paid for itself in a single season

*Sole Distributing Agents:*

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**509 Collins Street, Melbourne**



Note Spring Bottom and Canvas Bins. Each holds two cases.

# The Fruit Trade

*Market Reports and News Items.*

**REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS,**
**Advertising in this Journal.**

**NEW SOUTH WALES.**

**Sydney.**
Chilton, F., City Fruit Markets.
Greenberg, S. & M., Fruit Markets.
Louey Pang & Samuel Wong Ltd., Thomas St., Haymarket.
Rogers, F. H. G., Fruit Exchange.
Rule & Beavis, Fruit Exchange.

**VICTORIA.**

**Melbourne.**
Aurora Packing Co., 86 King Street.
Coastal Farmers' Co-op. Society, Western Market.
Colombie, H. G., 115 Hotham St., East Melbourne, see advt. xviii. for list of representatives.
Davis, J., Western Market.
Lister, G., Western Market.
Mills & Co., J. B., 9 Queen St. (representing Nothard, Lowe & Wills Ltd., London).
Millis, A., & Sons, Western Markets.
Mumford, J. G., 449 Flinders Lane.
Pang & Co. Ltd., H. L., Little Bourke Street.
Silbert, Sharp & Davies, Western Markets.
Stott & Son, T., Western Markets.
Tim Young & Co., Western Market.
Vear, F. W., 49 William Street.
Wade & Co., H. M., 471 Flinders Lane.
Woolf, G., Western Market.

**QUEENSLAND.**

**Brisbane.**
Barr, A. S., Fruit Exchange.
Collard & Mackay, Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Finlayson & Son, Fruit Exchange.
Geeves, H. V., Fruit Exchange.
Robsons Ltd., Fruit Exchange.
W. J. Whitten & Co., Fruit Exchange.

**WESTERN AUSTRALIA.**

**Perth.**
Wills & Co. Ltd., G., Exporters.

**SOUTH AUSTRALIA.**

**Adelaide.**
Wills & Co. Ltd., G. Exporters.

**TASMANIA.**

**Hobart.**
Jones & Co. Ltd., H., Fruit Exporters.
Peacock & Co., W. D., Fruit Exporters, and at London.

**Launceston.**
Bender & Co., 110 Elizabeth St.

**NEW ZEALAND.**

**Auckland.**
Radley & Co. Ltd., Fruit Auctioneers.
Turner & Growers Ltd., City Markets.

**Dunedin.**
Co-operative Fruitgrowers' of Otago Ltd.
Paterson, Thos., & Co., Vogel Street.

**ENGLAND.**

**London.**
Da Costa, Gerald, Floral Hall, Covent Garden.
Jacobs, E., & Sons, Covent Garden
Joel, R., & Sons, 16, 17, 20 Russell St., Covent Garden.
Margetson & Co. Ltd., Covent Garden.
Monro, Geo., Ltd., Covent Garden.
Nothard, Lowe & Wills Ltd., Tooley St.
Pask, Cornish & Smart, Covent Garden.
Poupart, T. J., Covent Garden.
Ridley, Houlding & Co., Covent Garden.
Springer, Barney, 12 Russell St., Covent Garden.
Swann & Co., 3 Salter's Hall Court.

**Hull.**
White & Son Ltd.

**Liverpool.**
Adam, James, Son & Co., 1 Temple Court.
Johnson & Co., T. S., also Manchester, Leeds and Hull.

**Southampton—**
Simon & Co (Southampton) Ltd., Aust. Agents. W. Weddell & Co. Pty. Ltd., 477 Collins Street, Melbourne.

**Manchester.**
North of England Fruit Brokers Ltd., represented by N. V. Wade, 8 Bridge St., Sydney.

**GERMANY.**

**Hamburg.**
Astheimer, P. H., & Son., Fruchthof.
Lutten, J. H., & Co., Hamburg.
Stier, Aug., Fruchhof, Reps. J. B. Mills & Co., 9 Queen St., Melbourne.

**HOLLAND.**

**Amsterdam.**
Algemeene Vruchten Import Maatschappy, De Ruyterkade, 39/40, also Rotterdam, Hamburg.

## British and Australasian Market Reports.

### Great Britain.

**London** (19/12/24).

Mr. G. Da Costa, Covent Garden, London, reports under date 19/12/24: —Canadian Apples, King's, 12/- to 22/- per barrel; Ribstons, 14/- to 22/-; Baldwins, 19/- to 24/-; Golden Russetts, 22/- to 26/-; American, York Imperials, 22/- to 28/-; others, 18/- to 26/-; 10/6 to 13/6 per box; Pears, Anjou, 25/- to 35/- per case; Winter Nelis, 25/- to 35/- per box. English Grapes, Alexandria, 6/6 to 10/6 per lb; others, 2/- to 2/3.

**London** (5/12/24).

Messrs. T. J. Poupart Ltd., Covent Garden, report as follows:—

Apples, C.O.P., 25/- to 30/- per bushel; Bramleys and Newtons, 14/- to 15/-; Grapes, Alicante, 3/- per lb.; others, 1/6 to 2/-; Colman, 2/6 to 3/6; good Muscats, 5/- to 6/-; Canon Hall, 6/- to 8/-.

**Liverpool** (22/12/24).

Messrs. J. C. Houghton & Co., Liverpool, report under date, 22/12/24, as follows:—American Apples, Baldwin, 20/- to 27/- per barrel; Virginian, York, 17/- to 24/6; British Columbian, Jons., 8/- to 12/6 per box; Oregon and Washington Newtown, 9/- to 13/-; others, 7/6 to 12/-; Pears, 17/6 to 26/- per barrel; Californian, Winter Nelis, 15/- half box; Lemons, 6/- to 10/- per case; best, 13/- to 14/3; Oranges, Valencia, 11/- to 17/6 half case.

### DRIED FRUITS.

**Liverpool** (1/12/24).

Messrs. J. C. Houghton & Co., Liverpool, report under date, 1/12/24, as follows:—

**Currants.**—It is doubtful if in living memory we have ever experienced a more disappointing November trade. Buyers apparently had no confidence to operate pending a revival of interest, and day after day passed without a transaction being recorded. The position of the market, nevertheless, is considered sound. The knowledge that the Greek Government has decided to purchase a further 15,000 tons, and the measure having passed the first and second reading in the Greek Chamber, has certainly given confidence to the shippers, and has been one of the main features in stabilising values. Therefore, as soon as demand shows more life the market should be quickly affected.

The additional supplies of 3,000 tons, comprising really attractive qualities, failed to attract the trade, and the small and insignificant business passing mostly centred round the lower grades.

Pyrgos realised 42/-; Amalias, 44/- to 45/-; Patras, 45/- to 48/-; Zante, 45/- to 48/-; Gulf and Panariti, 50/- to 56/-; Vostizza, 56/- to 64/-.

Australian. — Small consignments were received, and sales were reported at 42/- to 45/- up to 50/- for any parcels of special quality.

**Raisins.**—Fine fruit is scarce, but even this class is lower. Closing values were—¼ boxes, 40/- to 42/-; good to fine, 48/- to 60/-; ⅛ boxes, 75/-; seedless, 35/- to 38/-.

Australian Lexias.—Two fresh shipments are to hand, but no business is reported. Quotations, 30/- to 40/-.

**Sultanas.** — Fair quality realised 52/- to 54/-; medium to good, 56/- to 70/-; fine, 75/- to 90/-; Cretans sold 80/- to 90/-.

Australian Sultanas arrived during the month, ordinary dark, selling at 45/- to 48/-; fair, 50/- to 52/-; good coloury parcels, 55/- to 60/-. African —F.A.Q., sulphured variety, 54/-.

### New South Wales.

**Sydney** (22/1/25).

Mr. F. Chilton, City Fruit Markets, reports under date, 22/1/25 as follows:—

Queensland Fruits.—Bananas, 12/- to 20/- per case; Pines, smooth, 12/- to 16/-; common, 8/- to 10/-. New South Wales Fruits.—Bananas, Tweed River, 12/- to 20/- per bushel case; Lemons, 5/- to 10/-; Oranges, Valencia, 7/- to 12/-; Pears, W.B.C., 4/- to 7/-; China, 3/- to 5/-; Passions, 2/- to 5/- per half case; Peaches, 2/- to 5/-; Apricots, 1/- to 4/-; Plums, 2/- to 7/-; Nectarines, 3/- to 7/-; Tomatoes, 3/- to 5/-; Grapes, Black Hamburg, 8/- to 14/-; Black Muscat, 12/- to 18/-; Apples, Carrington, 2/- to 8/- per bushel case; Trivett, 4/- to 13/-; Gravenstein, 4/- to 12/-; Green Cooking, 3/- to 8/-. Victorian Fruit. —Apples, Gravenstein, 7/- to 11/-; Cooking, 4/- to 7/-; Pears, W.B.C., 6/- to 7/6.

Choice colored eating Apples are enquired for, but inferior quality are hard to sell.

An improvement in the demand for Peaches is expected, as lighter supplies are now coming forward.

The market is easier for Pears, owing to heavier supplies being available.

### Queensland.

**Brisbane** (30/1/25).

Apricots, 3/- to 5/- per half bushel case; Persimmons, 2/- to 4/-; Nectarines, 1/- to 4/-; Apples, Stanthorpe, cooking, 3/- to 8/- per bushel case; eating, 5/- to 10/-; Passion-fruit, 3/- to 7/-; Pineapples, Ripleys, 3/6 to 5/6; smooth, 4/- to 5/-; Papaws, 1/- to 4/- half bushel case; Plums, 6/- to 10/-; others, 2/- to 3/6; Grapes, black, 1½d. to 2½d. lb.; Peaches, to 3/6; Special, 4/6; Pears, Stanthorpe, 5/- to 7/6 per bushel case; Quinces, 5/- to 7/- per case; Bananas, prime, 4d. to 5d.; good, 2d. to 3d.; Ladies' Fingers, 3d. to 8½d.; sugar, 3d. to 5d.; Oranges, N.S.W., repacked, 14/- to 16/-; second crop, 4/- to 7/-; Lemons, local, 1/6 to 2/6; good quality, 5/- to 7/- half-bushel case.

### Victoria.

**Melbourne** (2/2/25).

Pineapples and Bananas have an easing tendency, as large supplies are both available and expected. Choice Tomatoes are in good demand, arrivals being light, and prices are firmer.

Apples—Good to choice eating, 3/-, 5/-; good to choice cooking, 3/-, 4/6. Bananas— (Q.), 10/-, to 22/- double. Grapes—Muscatels, 12/- to 15/- case; Chasselas, 6/- to 9/-. Lemons—Victorian, 10/- to 16/-. Oranges—Murray Valley and New South Wales, 10/-, 14/-. Peaches—Good to choice dessert, 6/- to 8/-; medium dessert, 3/6 to 4/6; canning, 2/6 to 4/-. Pears—W.B.C., 2/6 to 5/-. Plums—Dark, 3/- to 4/6; Japanese, 2/- to 3/-. Pineapples—Queens, 9/- to 11/- double. Tomatoes—6/- to 12/-.

### Citrus Report.

The V.C.C.A. market representative reports for week ending 30/1/25, is as follows:—The market generally was dull, the only demand being for the very best Oranges and Lemons. For the choicest Valencias 17/- to 20/- was obtained, but medium and inferior sorts were hard to shift at much lower figures. Best Lemons sold at from 14/- to 16/-, but the ruling rates for average lines were from 10/- to 13/-, while poor stuff hung fire at much cheaper prices.

### West Australia.

**Perth** (21/1/25).

Apples, Yates, 21/- to 30/3; Jon., to 15/3, ¾ bushels; small, to 7/-; cooking, to 13/6; small, to 6/-; others, 4/- to 9/-; Pears, Bartlett's, to 13/6; Flemish Beauty, to 8/6; Jargonette, to 6/-; Nectarines, prime, 30/- to 35/9; good, 20/- to 27/-; small, to 13/-; Peaches, 18/- to 25/9; others, to 12/-; Apricots, to 27/6; ¾ bushel, 16/- to 21/6 ½ bushel; others, to 13/-; Plums, Santa Rosa, to 23/9; Climax, to 21/-; Wickson, to 15/-; Shiro, to 17/-; medium, 8/- to 11/-; small, to 7/-; Oranges, 15/- to 20/- ¾ bushel; large, to 11/-; Lemons, 13/- to 17/9; large, to 8/-; Grapes, open, 8/- to 10/3; others, to 6/-; closed, 3/- to 5/-; Passion-fruit, to 13/9.

### Tasmania.

**Hobart** (31/1/25).

Apples, Gravensteins, No. 1, 3/6 to 9/4; Alex., No. 1, good, 5/8 to 6/2; others, 4/6 to 5/6; Duchesse, Nos. 1 and 2, 4/6 to 5/-; small ditto, 3/-; Quarendons, 4/6 to 5/-; W.P.M., No. 1 good, 5/9 to 6/-; B. Bath, No. 1, fair, 4/6 to 5/-; medium and small ditto, 2/6 to 4/3; cooking varieties, 4/6 to 5/6 case. Peaches, best lots, 9/- to 9/6; medium ditto, 4/8 to 6/4; Apricots, best lots, 6/- to 7/-; fair ditto, 5/- to 5/9; small and over ripe lots 3/- to 4/6 per case; Florence Cherries, best to 20/9; medium ditto, 14/6 to 15/- per half-case; Tasmanian Tomatoes, 16/9 to 22/6 per half-case; ditto, to 30/9 bushel.

### South Australia.

**Adelaide** (23/1/25).

Apples, eating, 9/- per case; cooking, 7/-; Apricots, 8/-; Grapes, white, 9/-; Lemons, 11/-; Nectarines, 9/-; Oranges, 11/-; Passion-fruit, 30/- to 32/-; Peaches, 7/-; Pears, eating, 8/-; Plums, 5/-; Japanese, 6/-; Pineapples, 14/- to 16/-; Bananas, 30/- to 32/-; Blackberries, 6/- doz. lb.; Currants, Red, 6/-; Black, 1/3 per lb.; Dates, 4d. lb.; Strawberries, 8/- per doz. lb.

### New Zealand.

**Dunedin** (23/1/25).

Reilly's Central Produce Mart report under date, 23/1/25, as follows:—Heavy consignments of fruit and produce continue to arrive. Tomatoes are meeting a good demand.

Pears, 2d., 3½d.; Apples, new season's desserts, 4d.; cooking, 2½d., 3d.; Oranges, Australian, 22/-, 24/-; Lemons, Australian, 28/-; N.Z., 25/-; Italian, 32/6; Bananas, ripe, 34/-; Fiji, 21/-; Rarotongan, 19/- case; Peaches, choice, 3d., 6d.; cooking, 2d., 3d.; Apricots, dessert, 4d., 6d.; cooking, 2½d., 4d.; Pines, dessert, 3d., 4d.; Cherry Plums, 2d.; Loganberries, 6d., 9d.; Raspberries, 4½d, 1/-; Strawberries, 1/3, 1/4; Grapes, 1/10½, 2/-; Tomatoes, locals, 1/1, 1/3½; Christchurch, 8d., 10¾d.; Otago Central, 8d., 10½d.; seconds, 5½d., 7d; Nelsons, 5d., 8¾d.; Cherries, Kentish, 6½d.; Nectarines, 2½d., 5d.; Currants, Red, 3d., 5½d.; Black, 6½d.; Gooseberries, 1¾d., 2d.

## FINISHING OFF DRIED FRUIT.

A machine of particular interest to dried fruitgrowers known as the "Indispensable" evaporator, is advertised elsewhere in this issue. This machine, which was used successfully by growers last year, produces a first-class dried article in a minimum of time at low cost. The evaporators are made in two sizes, the tray area of one being 400 square feet, and the other 600 square feet.

Full particulars will be supplied on application to the manufacturer, D. J. Latham, 157 Queen-street, Melbourne.

## SUBSCRIBERS' PAYMENTS RECEIVED.

The following are the subscriptions received from November 20th to January 20th, 1925. The month quoted in parenthesis indicates to what date the subscription is paid. These are exclusive of the subscribers who have paid to local agents or to our offices in the various States:—

E. Ashby (Oct., '25), Aust. Dried Fruits Assocn. (Nov., '25), F. Alvano (Nov., '25), F. Adamson (Sept., '25), A. J. Aird (Oct., '25), Aust. Press Assoc. (Sept., '25), Aust. Fruit & Prod. Co. (Oct., '25), E. N. Barton (Apl., '25), C. Batchelor (Sept., '25), E. Bechervaise (Nov., '25), S. H. Bradley, (Apl., '25), W. Brameld (Apl., '25), W. R. Bray (Dec., '24), E. Burge (Oct., '26), J. Burton (Oct., '25), H. G. Caldicott (Sept., '25), A. G. Campbell (Sept., '26), J. Campbell (July, '25), F. J. Churches (Oct., '25), O. Coleman (Dec., '24), E. R. Cottier & Co. (Nov., '25), Cowley & Co. (Dec., '24), J. Davis (Jan., '25), J. Davies (Nov., '26), J. Darwent (Nov., '25), D'eppeler Bros. (Oct., '25), A. B. Donald (Oct., '25), D. C. Douglas (Jan., '25), R. E. Downie (Nov., '25), V. J. Doyle (Nov., '25), F. Elwood (Feb., '25), E. M. Fawke (Sept., '25), A. D. Finger (May, '25), R. M. Finlay (July, '25), L. Friend (Sept., '25), R. H. Fuller (July, '29), R. Fulton & Sons (Dec., '25), E. H. Giddens (Sept., '25), Gosford Dis. Citrus Packing Co. (Oct., '25), Griffith Producers' Co-op. (Aug., '25), F. A. Hagenhauer (March, '25), Basil Hall (Feb., '25), J. Handasyde (Oct., '25), A. T. Harris (Oct., '25), Hawkins and Lasscock (Oct., '25), J. B. Heckley (Dec., '25), M. J. Herbert (March, '25), H. W. Hine (Nov., '25), N. Jackes (Sept., '25), C. H. Katekar (Nov., '25), Kenmore Hospital (Sept., '25), N. B. Lee (Dec., '24), C. Lowe (Jan., '25), J. Lumb (Oct., '25), Morgan & Willmington (Dec., '24), J. Morgan (Oct., '25), C. B. Mottram (June, '25), J. Mowat (Nov., '25), J. W. Melville (Nov., '25), Mt. Barker Estate (Oct., '26), F. McGlasson (Jan., '25), N.S.W. Fruitgrowers' Assn. (July, '25), C. P. Nobelius (Nov., '25), T. J. Owen (Nov., '25), J. J. O'Hanlon (Oct., '25), J. P. O'Callaghan (Dec., '24), C. Piesse & Co. (Oct., '25), J. A. Parkes (Oct., '25), J. Porter (Oct., '25), S. Plush (Nov., '25), L. P. Rosen & Son (Oct., '25), W. J. Rees (Oct., '25), S. G. Ritchie (Sept., '25), H. F. Richardson (Oct., '25), E. J. Rule (June, '25), G. Rossini (Nov., '25), Renmark Fruitgrowers' Co-op. (Oct., '25), H. J. Rix (July, '25), A. J. Ratcliffe (Dec., '25), A. Reye (Oct., '25), School of Arts (Stanthorpe) (Jan., '25), School of Arts (Woombye) (Dec., '24), W. M. Shaw (Sept., '25), Studley Pres. Co. (Nov., '25), G. W. Summers (Oct., '25), C. H. Smith (Sept., '25), R. M. Shepherd (Sept., '25), Swain Bros. (Nov., '25), Thos. Sutton (Sept., '25), G. H. Tolley (Oct., '25), S. A. Thornell (Sept., '26), H. M. Thomas (Nov., '25), C. Trevatt (Nov., '24), G. A. Thorpe (March, '25), N. D. Wivell (Oct., '24), F. Walker (Dec., '24), Westralian Farms Ltd. (Nov., '25), W. J. Weir (Nov., '25), P. G. Westcombe (Nov., '25), W. H. Walters (Oct., '25), R. Wilkinson (Jan., '25), J. H. Yeomans (Oct., '28).

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### Correction in "Fruit World Annual."

Dealing with statistics in the jam and canning industry, a typographical error is published in the "Fruit World Annual" on page 61. In showing the decline of the jam industry owing to the unfavorable sugar position, the following are the corrected figures:—

| Year. | Jam Manufactured. | Estimated Population. |
|---|---|---|
| 1912 .. .. | 85,889,929 | 4,746,801 |
| 1922-23 .. | 66,971,456 | 5,749,809 |

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"FRUIT WORLD OF AUSTRALASIA."

Representing the Deciduous, Citrus and Dried Fruits Industry of Australasia.

Published the First of each Month.

**Editorial and Management Notices.**

**Articles and Photographs.**—The Editor will always be very pleased to receive articles and photographs for publication. Articles on spraying, pruning, drainage, marketing, and other cultural matters, and reports of meetings, are welcomed. Please write on one side of paper only; include name and address (not necessarily for publication). Press matter sent in an open envelope, marked "Printer's MSS.," postage rate: 2 ozs., 1½d. Photographs, if sent in an open-ended package, marked "Photos. only," will travel at 2 ozs., 1½d. A short description of the photos. should be written on the back.

We do not hold ourselves responsible for the views expressed by our correspondents.

**Subscriptions.**

The annual subscription, post free within Australia and New Zealand, is 8/6. All other places, 10/6, post free. New subscriptions can commence at any date. Subscribers should notify us immediately of any change of address.

**Renewal Subscriptions** are due during the last month of the term covered by the previous payment, and unless notified to the contrary, the fact that the subscriber continues to accept delivery of the journal, is taken as proof that continuation of the subscription is desired, and we will continue to send regularly until notified in writing or copies are returned through the post.

**Advertisements.**

"The Fruit World of Australasia" is an advertising medium of proved value. Advertising rates may be had on application to our Head Office, or to agents in the various States, as set out below.

Changes of copy for advertisements must be in our hands on or before the 17th of the month prior to publication.

Readers are asked to make their purchases from our advertisers, who cover all lines of interest to orchardists, at the same time mentioning this journal. By so doing, the grower, the advertiser, and this paper will benefit.

Every care is taken to publish advertisements from reliable houses only, and to see that advertisements of an undesirable nature are not published. The management reserve the right to refuse to publish any announcements that they may regard as undesirable, either from the point of view of the goods offered or in the wording of the advertisement, notwithstanding the fact that a contract may have been entered into for the use of a certain space.

"The Fruit World" Offices (where copies and full particulars are obtainable) are as follows:—

**Victoria** (Head Office): 9 Queen Street, Melbourne. **New South Wales:** Carruthers, Farrum & Co., 77 King Street, Sydney. **South Australia:** W. F. McConnell, Grenfell Buildings, Grenfell Street, Adelaide. **Tasmania:** Saunders & Co., Murray Street, Hobart. **Western Australia:** D. L. Hetherington, Colonial Mutual Buildings, St. George's Terrace, Perth. **Queensland:** Gordon & Gotch Ltd., Queen Street, Brisbane. **New Zealand:** Gordon & Gotch Ltd., Wellington, Dunedin and Auckland. **Great Britain:** Harvey H. Mason, 1 Mitre Court, Fleet Street, London, E.C., England.

R. E. BOARDMAN, A.F.I.A., Managing Director and Editor.

E. H. WRAGG, Secretary and Advertising Manager.

**Tasmanian Director:** HON. L. M. SHOOBRIDGE, M.L.C.

**THOUGHT FOR THE MONTH.**

THE MOST MANIFEST SIGN OF WISDOM IS CONTINUED CHEERFULNESS.
—Montaigne.

# Editorial.

## NATIONAL ADVISORY COUNCIL.

OUR article under this heading last month evoked considerable comment. An explanation has been tendered as to the gazettal of regulations other than those approved by the growers. It is admitted by the Customs Department that the regulations were altered, but that after publication the new provisions were noted to be different from the original, and that at the earliest opportunity —a matter of a few weeks only—the altered regulations were cancelled, and in place of them there appeared the regulations exactly as approved by the Council.

By the very act of gazetting altered regulations, however, the damage was done. No matter how soon or late the error was rectified, the Department and the Council suffered in prestige thereby.

The alterations were as follows:—

**"Standard" Grade.**—The Council approved of 10 per cent. of blemish by rubbing, black spot, fungus or caterpillars. The Customs Department added (without authority) . . . "provided that no one of the four blemishes is found on more than five per cent of the fruit."

In **Plain Grade.**—The Council approved 30 per cent. blemish, but the Department added (without authority) . . . "provided that no one of the four blemishes is found on more than 10 per cent. of the fruit."

These alterations may at first appear innocuous to any but the practical man. In reality the alterations were vital and nullified the Council's work.

The subject was dealt with in the November, 1923, issue of the "Fruit World." Commenting on the position, a member of the Tasmanian Fruit Advisory Board then said that the alterations **completely changed the regulations, and struck at the root of the Apple export from Tasmania.**

As regards the other matters, viz., the sending out of new proposed regulations, and a draft bill before the full Council has considered them, the session in May will decide its policy.

In the meantime the unwieldy nature of the Council becomes still more apparent. The recent interstate Citrus Conference decided that as its circumstances differed from other sections of the industry, it would have nothing to do with the proposed Fresh Fruits Exports' Control Bill.

The Apple grading regulations will come up again for discussion, and growers of Bananas, dried fruits, cittrus, etc., will have the preponderating vote.

The fact is that the differences between the several sections of the industry are so great that organic unity, or the speaking with a "composite voice" as Mr. Rodgers hoped for, is impossible—that is, excepting on such matters as protesting against the high tariff, the sugar embargo, and requesting freedom from Arbitration Court awards.

At one "Council" meeting a delegate indicated that he had something to say about dried fruits, but had been "bored stiff" by hearing nothing but Apples for two days.

The several sections of the fruit industry will achieve success as they organise in groups according to the fruits produced. In this respect the "fruit" differs fundamentally from butter and meat.

# News in Brief.

Unpaid interest to the extent of £250,000 has been written off Soldier Settlement blocks, and a further period free of interest has been granted.

* * *

A League of Freedom has been formed in Queensland to abolish the compulsory powers of the Committee of Direction of fruit marketing.

* * *

The South Australian Fruit Advisory Board has decided by resolution not to consider the draft Bill for control of the export of fresh fruit until the matter has been considered by the full Australian Fruit Council.

* * *

At a meeting of Victorian Apple exporters the proposed Fresh Fruit Export Control Bill was vigorously opposed, and a motion deferring consideration for six months was carried.

* * *

At Motueka (N.Z.) Sturmer and Delicious Apples were found to be more susceptible to Black Spot than other varieties. Jonathan and C.O.P. were fairly clean.

* * *

Growers of canning fruits at Griffith and Yenda (Murrumbidgee Irrigation Areas) are moving to have a canning factory established at Griffith. Negotiations are in progress with the N.S.W. Government.

Sincere regret will be felt throughout Australia at the untimely death of Mr. W. Rowlands, Fruit Marketing Instructor of the Queensland Government.

* * *

There was a glut of soft fruits in the markets of the Australian Capital cities during February.

* * *

Interesting figures regarding crops and quantities handled by canneries are given by our Murrumbidgee Irrigation Area Correspondent.

The South Australian Fruit Advisory Board does not approve of the new grading regulations recently sent forward by a committee of the Australian Fruit Council.

* * *

Both the Overseas Shipping Association and the Commonwealth Government Line of Steamers state that no good purpose would be installed by the installation of self-registering thermometers in holds carrying fruit for export. The South Australian Fruit Advisory Board has decided to take no further action in the matter.

* * *

The detailed report of the condition of the 1925 crops of N.Z. fruits (published in this issue) will be of interest to readers, not only in the Dominion, but to those in Australia as well. Varieties are mentioned which seem more susceptible than others to Black Spot and other diseases.

* * *

Tasmanian berry growers report having had a satisfactory season, both as regards the crops harvested and the prices realised.

* * *

At the recent big fruit show at Stanthorpe (Q.), special mention was made regarding the packed cases of deciduous fruits. Praise was bestowed on the Department of Agriculture for inaugurating fruit packing classes, and on Mr. W. Rowlands the packing instructor.

* * *

A heavy crop of citrus fruit is anticipated in N.S.W.,—probably double the harvest of 1924. The quality is likely to be superior.

* * *

Several new varieties of Apples of the Cox's Orange Pippin strain have been developed in England, and are highly spoken of.

* * *

The South Australian citrus crop is reported to be medium.

* * *

The W.A. Fruit Advisory Board does not see the advantages which it is stated would accrue from the passing of a Fresh Fruits Export Control Act.

* * *

School children in the Granite Belt (Queensland), are assisting in the fruit fly destruction campaign; 12 children recently gathered and destroyed 4,000 fruit flies.

* * *

Interesting details regarding the cold dip process are published in this issue under our "Sunraysed Courier" section. Growers are impressed with the process and are forming committees to undertake experiments and collect data.

* * *

Brown Rot has done much damage to soft fruits in many parts of Australia and New Zealand. The transit rot is also prevalent.

The high price of sugar was one of the factors which adversely affected the price of Apricots this season, states our Tasmanian correspondent.

* * *

With Nectarines the Goldmine variety is stated to be the most satisfactory at Gisborne, New Zealand.

* * *

At the Harcourt (Vic.) Cool Store the installation of a crude oil engine resulted in a saving of £227 for fuel.

* * *

Heavy rains damaged the vine fruit crops in the Mid-Murray Valley, states our Murray River Correspondent.

* * *

The use of Nicotine Sulphate is being tested as a cure for Bunchy top in Bananas.

* * *

Both Tasmania and Victoria have sent experimental shipments of Williams Pears to Great Britain this season, the Departments of Agriculture rendering assistance. Mr. A. J. Smith (Cambridge Cold Storage Scientist) is closely co-operating.

* * *

Fruit packing classes in Victoria have been so popular that there are more applications than the Department of Agriculture can attend to. An increase of the staff for this important work is warranted.

* * *

Members of the Victorian Fruitgrowers' Central Association, a body which has spoken for the industry in Victoria for many years, are asking why they did not get an opportunity for discussing the proposed alterations to the grading regulations for Apples and Pears. The matter was before the Victorian State Fruit Advisory Board, to which the Central Association sends its representatives, yet the parent body has been neglected, and has not had the opportunity of directing its delegates on the subject.

Tasmanian growers insist that the "plain" grade for export Apples should permit of the exportation of fruit showing 100 per cent. slight blemish. This is in accordance with the regulations of California, Oregon and British Columbia. New South Wales growers, in Annual Conference, have by resolution entirely concurred with the Tasmanian viewpoint.

* * *

Sultanas should never be picked until they have fully developed their sugar content.

* * *

An illustration of the wide circulation of the "Fruit World" is seen in the fact that on publication of a paragraph mentioning a new Peach raised by Mr. J. W. Mowat of Kyabram, letters have been received by the raiser from various parts of Australia. In addition to this, a letter was received from Mr. H. P. Gould, Pomologist of the U.S. Department of Agriculture, Washington, U.S.A.

## Personal.

The Tariff Board meeting, to take evidence against the proposed Tariff increase on softwoods for boxes, brought Mr. R. E. Downie (Secretary Murray Wholesale Co-op. Society) from Adelaide for a few days.

* * *

Mr. Pennifold (Manager Red Cliffs Co-op. Packing Ltd.) was in town, and attended the Tariff Board to give evidence on behalf of the Mildura growers.

* * *

Mr. Alan Edmunds, who was attached to the sales promotion department A.D.F.A., for 14 months, has joined the staff of the "Fruit World." His resignation dated from February 14th.

* * *

Mr. I. F. Glenister has been transferred from Adelaide to take up sales promotion work in Melbourne.

* * *

Mr. W. H. Murray, of the Horticultural Branch of the Vacuum Oil Co., left Australia at the end of February for a trip through America, England and the Continent.

Mr. Murray will study the methods of pest control in the countries visited, also marketing methods and co-operation amongst fruitgrowers.

The smile of genial "Bill" Murray will be missed by Australian fruitgrowers for the next eight months or so, but as he was married just prior to leaving, and is taking his charming wife with him, he will be in good hands.

* * *

Mr. E. G. Scriven, who for twenty years has been Under-Secretary for Agriculture in Queensland, retired from that position at the end of December. Mr. Scriven's services to the State have been of a high order and widely appreciated.

* * *

Mr. A. E. J. Graham, a Departmental officer of wide experience, has been appointed to succeed Mr. Scriven, and Mr. Robt. Wilson is to be the assistant Under Secretary.

* * *

Mr. A. J. Humberstone, of Victor Harbour, South Australia, was in Melbourne during February. He is a large grower of the St. Michael Orange as well as other varieties. Mr. Humberstone states that the Thompson Orange has proved to be unsatisfactory, being dry,—in fact it was because of the presence of these on the Adelaide market which caused a slump in prices. Mr. Humberstone consulted with members of the wholesale fruit trade in Melbourne regarding the disposal of his Oranges.

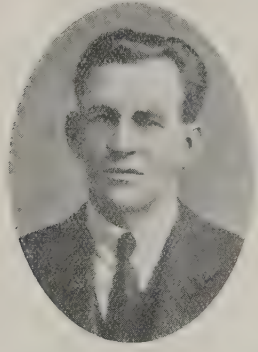
* * *

Mr. C. A. L. Morant, Chairman of the Murray River Wholesale Co-operative Ltd., visited Melbourne during February, and gave valuable evidence against the proposals to increase the duty on softwood cases.

## DEATH OF MR. WM. ROWLANDS.

It is with deep regret we announce the death of Mr. William Rowlands, Fruit Packing and Marketing Officer of Queensland, and late Fruit Packing Instructor for Tasmania, who passed away suddenly in the street in Stanthorpe, Southern Queensland, on February 19th, at the early age of 35 years.

The late Mr. Rowlands was well known amongst fruitgrowers of Australia and New Zealand. He was a



*The Late Mr. Wm. Rowlands*

Tasmanian by birth, and when only 16 or 17 years old, left his native country for Nelson, New Zealand, for the purpose of taking charge of a number of Apple packing sheds. He returned to Tasmania at a later date for the purpose of obtaining the services of fruit packers for New Zealand. Returning with these he remained in that country up till the time the Great War broke out, when he was one of the first in the Nelson district to enlist. He left for Egypt with the New Zealand Light Horse, and saw service at Gallipoli where he was seriously wounded at the evacuation, and owing to this he had a very trying time in hospital for some 20 months. The results of his wounds left him with a weak heart which was eventually the cause of his death.

The Superintendent of Horticulture (Mr. J. M. Ward) of the Victorian Department of Agriculture, and who for about 9 years was Government Fruit Expert in Tasmania, pays a well deserved tribute to the late Mr. Rowlands.

Mr. Ward states:—"Knowing Mr. Rowlands's capabilities in the art of preparing fruit for market, I had him appointed to the position of Packing Instructor in Tasmania where he served for some five years, and during that time revolutionised the packing methods in that State, and did wonderfully good work which was highly appreciated by the Tasmanian growers. Later on—1922—I took up the position of Chief Instructor in Fruit Culture in Queensland and, acting on my recommendation the Department had Mr. Rowlands appointed Instructor for Queensland. Previous to this his services had been loaned by the Tasmanian Government to Queensland for several weeks. Mr. Rowlands did particularly good work in improving the packing of Bananas, Pineapples, Citrus fruits, Tomatoes, and Apples, and in this respect the fruitgrowers of Queensland owe a great deal to our late esteemed friend.

"He had the opportunity of coming to Victoria some 12 months ago, but the growers in the Northern State had so appreciated his services that they made such a strong request to the Minister of Agriculture that he raised his salary £150 per annum to retain his services.

"In all my travels in the fruit districts of Australia, New Zealand and the western States of America and Canada, I have never met Mr. Rowlands' equal in the art of preparing fruit for market, and his death is a severe loss to the Australian fruit industry.

"The Tasmanian and Queensland fruitgrowers, as well as those in other States with whom he came in contact, had the greatest admiration and respect for him. No whiter man than Mr. Rowlands ever lived."

At one time he played football with the New Zealand "All Blacks" and visited New South Wales with the team.

There is no doubt that Mr. Rowlands' energy and hard work for the fruitgrowers helped his war-injured heart to bring about his early demise.

Mr. Rowlands leaves a wife, but no family, and the deepest sympathy is felt for his widow.

## £10,000 FOR BLACKBERRY EXTERMINATOR.

### N.Z. Government's Offer.

The New Zealand Government recently offered a bonus of £10,000 for an efficient, practical, and economical method of exterminating Blackberry, otherwise than by cultivation or farm management methods, such as seeding, tree planting, or stock manipulation.

Such new method as may be submitted must not impair the normal fertility of the soil. There are several other conditions, details of which are available from the Director-General, Department of Agriculture, Box 888, Wellington, N.Z.

## NEW ZEALAND APPLES.

### Guarantee of 1d per lb. on 300,000 Cases.

The Government of New Zealand is this season again guaranteeing growers 1d per lb. net return on shipments of Apples. The guarantee is limited to Extra Fancy and Fancy Grades only, and the maximum is 300,000 cases.

# South Australia.

### Advisory Board and Association Meetings.

### News and Notes.

### Advisory Fruit Board.

A meeting of the South Australian Fruit Advisory Board was held in the Office of the Minister of Agriculture, Adelaide, on 12th February, 1925. Members present were:—Mr. W. L. Summers (in the chair), Messrs. G. A. W. Pope, G. Quinn, Randell, C. T. Fisher, J. Donaldson, H. J. Bishop, and H. Wicks.

**Fresh Fruit Control Bill.**—The Chairman reported having received from the Secretary to the Australian Fruit Council, an intimation that a Bill had been framed to give effect to the recommendation of the sub-committee of the Council that legislation on the lines of the Butter Export Control Act should be introduced to provide for the control of the export of fresh fruit, and a request for an expression of opinion from this Board. The chairman added that there was nothing to indicate that the recommendations had been considered by the Australian Fruit Council at all before the Bill was drafted, or whether the Federal Government are putting forward this Control Bill. Members of the Board took exception to the proposal of this character being circulated except upon the direction of the Australian Fruit Council, and after discussion it was resolved:—

> "That this Board is not prepared to consider the proposal until it is formally submitted to the State Boards by the Australian Fruit Council, with full particulars as to how it is intended that the proposals embodied in the draft will be put into practical operation."

**New Proposed Grading Regulations.** — Draft regulations intended to take the place of the present regulations dealing with the grading of export Apples and Pears, were forwarded by the Secretary to the Australian Fruit Council with a request that the Board should express an opinion in respect to the proposed alterations. It was pointed out that the proposals generally tended to lower the grade standards although it was considered quite impracticable to carry out grading to the standard proposed for "fancy." The proposed new regulation altered the description of the highest grade from "special" to "fancy" but provided that every fruit should be free of any blemish whatsoever. The second grade name was to be changed from "standard" to "choice" but was actually permitting pointed to the position of Packing

of a lowering of the quality of the fruit, as under the present description of "standard" only 10 per cent. of the fruit can show blemishes caused by rubbing, fungus diseases, or caterpillar, while in the proposed grade of "choice" there was no limit on the number of fruits which might show such defects, provided no individual fruit was affected to an extent greater than the area contained in a circle having a diameter of one-eighth of an inch: in the present grading regulations the total area of such blemishes permitted on any one Apple is one-quarter of an inch.

The proposed new standard has a serious defect that every fruit in the case might be more or less blemished and yet comply with the description "choice." It was proposed to alter the name of the lowest grade from "plain" to "standard," and to permit 100 per cent. of the fruit to be blemished instead of only 30 per cent. as at present. After careful consideration of the proposed alterations to the various standards, the following resolution was carried by the Board:—

1. "That in our opinion the standard for 'fancy' is impracticable in commercial practice."

2. "That we take strong objection to the alteration of the grade 'standard' as proposed, and to the substitution of the description 'choice' for the description 'standard.'"

3. "That the Board objects to the altering of the standard as at present exists for 'plain,' and to the description 'standard' being applied to such a low grade."

"The Board further protests against the policy of frequent alterations of export grades for Apples and Pears, except in minor details, unless experience in the marketing of fruit in Great Britain demonstrates the necessity for it."

It was further pointed out by the Board that it was impossible to expect satisfactory working of these export standards **unless the standards were reasonably permanent.** As things were at present, before packers could reasonably adapt themselves to a new standard, proposals were submitted for further alterations.

**Grading for Interstate Trade.**—The New South Wales State Fruit Advisory Board submitted draft regulations dealing with the sale of Apples and Pears in the Sydney market, and requested that these should have consideration with a view to bringing them into force in South Australia. Members of the Board expressed a very strong opinion that it was inadvisable for any State to adopt standards covering the marketing of Apples and Pears, without reference being made in the first place to the Australian Fruit Council, in order that uniformity might wherever possible be secured, and that in any case the Commonwealth standards for export should be followed in respect to fruit which will conform to such standards. It was resolved to advise the New South Wales Board in terms of the following resolution:—

"That under present conditions especially for local trade we consider the draft regulations—being more difficult of application than those of the Commonwealth Export—quite out of the question, and are not prepared to ask the Government to legislate in this direction. Further, the Board strongly urges that if standards are adopted they should conform to the present Commonwealth standards for export, and that no grades should be adopted without first being submitted to the Australian Fruit Council with a view to securing as far as practicable uniformity in standards."

**Wembley Exhibition.**—A letter was received from the Secretary to the Australian Fruit Council asking the Board to endeavour to make arrangements for the supply of 80 cases of Apples, 50 cases of Grapes, 25 cases of Pears, and 30 cases Oranges, for the Wembley Exhibition. The chairman pointed out that the Government had declined to incur any expenditure in connection with the continuance of the Exhibition at Wembley this year, but had agreed to co-operate as far as practicable in securing exhibits if the Commonwealth would meet the cost. Members expressed themselves very strongly in favour of South Australian fruit being sent for the Exhibition, although the action of the Exhibition Commission in failing to furnish any report in respect to the fruit sent last year was severely criticised. It was resolved:—

"That the Government be asked to make available the necessary facilities for getting the fruit away; that the Minister of Agriculture be asked to allow Mr. Quinn to arrange for the Pear and Grape shipments; that the Citrus Association be asked to arrange for the necessary consignment of Oranges; and that the Fruitgrowers Association be asked to arrange for the supply of Apples."

**Self-Registering Thermometers.**—A communication was received from the New South Wales Department of Agriculture enclosing report in respect to requests that self-registering thermometers should be installed in refrigerated holds of ships carrying fruit. Both the Overseas Shipping Association and the Australian Commonwealth Line of Steamers declined to accede to the suggestion, and pointed out that no good purpose at all would be served, while considerable cost would be incurred in respect to installation and maintenance. It was pointed out by members that the report of the investigation into the cause of "brown-heart" substantiated the claim of the Shipping Companies, and it was decided to take no further action in the matter.

## Association Meeting.

A meeting of the Executive of the South Australian Fruitgrowers and Market Gardeners' Association was held at Adelaide on January 30th. The President (Mr. J. B. Randell) presided over a fair attendance of delegates.

**Proposed Plum Export.**—The Secretary (Mr. E. Naughton) reported that shipping space for the proposed export Plum shipment could not be arranged. South Australia promised to take half a chamber with a capacity for 5,000 trays per s.s. "Hobson's Bay," and an effort was made for West Australia to fill the other part of the chamber, but without success. Local growers were very much disappointed, as they had a very fine lot of fruit ready to pick.

**Jam Fruit Pool.**—Mr. J. Donaldson, Secretary of the Jam Fruit Pool, reported that the first payments on Apricots, and payments in full on Gooseberries and Raspberries, were ready to be made. A satisfactory quantity of fruit was processed by the Pool, and the growers generally realised its benefits in clearing the markets of surpluses. Some growers realised an average of 5/- per case for their Apricots on the market, and although they did not participate in the pool, they give credit to the pool scheme for being the means of placing at least 1/- per case in their pockets.

**Duty on Softwood Shooks.**—A letter was received from the Secretary of the Australian Conference of Fruitgrowers re protesting against the proposed duty on imported soft fruit cases. It was resolved to support the protest about to be made.

**The Sugar Question.**—Mr. R. E. Boardman was congratulated on his able and convincing article on the sugar question, which appeared in a recent issue of the "Fruit World."

## HELD OVER.

Owing to pressure on space, we have had to regretfully hold over articles as follows:—Spraying the Citrus Grove (by W. S. Arnold); Report on London Marketing (by A. J. Arnot); Asparagus Growing; Balance of Report of California Fruitgrowers' Exchange (Citrus); Report of Activities of Victorian Division of Horticulture; Correspondence from Queensland re Committee of Direction; the New Proposed Apple and Pear Grading Regulations Approved in New South Wales.

## FRESH FRUITS EXPORT CONTROL BILL.

### Vigorous Opposition in Victoria.

Emphatic opposition to the new proposed Fresh Fruit Control Bill was expressed at a representative meeting of the Victorian Apple and Pear growers, called by the Victorian Apple Growers' Association to consider the subject. Mr. J. H. Lang presided.

Mr. Bailey (Narre Warren) supported the Bill. It had been prepared, he said, by a sub-committee of the Australian Fruit Council. The Board would be elected by growers, each of whom would have a vote. There would be no attempt to divert the trade from its present channels. The Board would select a list of sound agents, any of whom the growers could choose. A difficulty which now existed was that a weak holder in London could reduce the market price. Under control this would be overcome. The Board would control the whole of the export for all the States, and the Act was intended to be permanent.

Mr. Thomas (Bunyip) also supported the proposed Bill, believing it would help the growers. Self-registering thermometers could be demanded, and they could speak as a composite body better than as units.

Vigorous opposition was expressed by Messrs. Mair (Tyabb), Tully (Doncaster), Willoughby (Tyabb), Vear (Healesville), Carne (Pakenham Upper), James (Harcourt), Lang (Harcourt), and F. H. Burbury (Secretary). The speakers gave their practical experiences, and stated that the difficulties of working a proposed board were insuperable, and that the proposals were unnecessary and impracticable. The proposal to cool store fruit in London was turned down 20 years ago. To appoint a board to eliminate the weak agent in London was like using a steam hammer to crack a nut. The times demanded a reduction in expenses—not an increase. The friction in Queensland did not suggest happy experiences for other growers coming under "control."

It was decided, on the motion of Messrs. Vear and Wilson, to defer consideration for six months, or until such time as a report was obtained of the New Zealand experience.

## WESTERN AUSTRALIA.

The Government Viticulturist (Mr. Johns) states that the season has been very bad for Currants: there is no likelihood of even average yields. This opinion is confirmed by Mr. A. Yates, of Millendon, W.A., a member of the Dried Fruits Export Control Board.

As regards Raisins, Wine and Export Grapes, the season has proved favorable.

# TASMANIA.

Crop and Cultural Notes. Export Control Bill Opposed.

Growers Urgently Request Alteration in "Plain" Grade Regulations.

TASMANIA is now experiencing a season which is just the reverse to that of last year. The weather continues dry, warm northerly winds being very prevalent.

The effects of this are very noticeable in the Apple and Pear crops.

The fruit is making good development where the soil tilth has been maintained, and many crops which were showing slight infection from Black Spot fungus are now almost free from the disease, the weather arresting the development of the fungus, which appears on the skin surface as russet.

The **berry** fruits are now all harvested, and judging by the prices and crops, growers have generally experienced a satisfactory season.

**Apricots** are now practically finished, the bulk of the crop being processed into preserves and jam. The quality of the fruit this season was much improved over the crops produced under the abnormal cold and wet conditions of the two preceding years.

Prices have considerably declined for the sale of this fruit during the last few years, largely owing to the increase in crops and the **restrictions on the sale of the product owing to the high cost of sugar for processing.**

The Apricot crop is rather a difficult one to handle, under existing conditions. The fruit ripens very quickly, and the harvesting season is confined to only a few weeks. During these, processors are working at top pressure to cope with the supplies, and of recent years the additional labour required has been difficult to obtain.

During the war years the Apricot was about the most profitable crop to grow, owing to the demand for jam and canned fruits. In consequence of this the areas were largely increased, and many new plantations were made.

### Overseas Export Grades.

Tasmanian fruitgrowers are wondering why nothing further has been heard from the Customs authorities in respect to the proposals which emanated from them for the alteration of the overseas export grades. Feeling is strong **against any change in the designations,** which were agreed to by all the States after a good deal of consideration.

Standardisation, to be effective, and produce the desired results, must be carried out in principle by deciding on "a set of standards" (as few as possible) "reasonable requirements for each," which will ensure the export of sound, edible fruit carrying a minimum of blemish; and most important, "alter them as little as possible." Constant alterations (especially in the names) will only be conducive to confusion, and a stultification of the objects of standardised trade.

The Customs regulations at present in force are alright as they stand, except that the "Plain" grade should be adjusted so as to admit the export of **100 per cent. slightly blemished fruit.** California, Oregon, British Columbia, and all other large Apple producing centres have provision for the marketing of a grade of this quality, and generally receive profitable prices for such on the overseas markets.

**The regulations as they stand prevent the export of a great quantity of sound, well formed, edible fruit, which would command good prices upon the home markets.**

### Experimental Pear Shipment.

The s.s. "Esperance Bay," which will visit Hobart at the end of February, to load the early consignments of Apples will also carry an experimental shipment of Williams Pears. These will be forwarded in one of the special chambers provided by the Commonwealth line of steamers, and packed in single trays under the supervision of the officers of the Fruit Division.

The fruit which is to be used in the experiment will be drawn from the different Tasmanian centres, and an endeavour has been made to obtain consignments grown under varying soils and conditions. Until the arrival of the "Esperance Bay," the fruit will be held in cold storage at a temperature of 33 deg. F. The experiment will be conducted in co-ordination with Mr. A. J. Smith, the Cambridge Scientist, who is investigating the occurrence of Bitter Pit amongst Apple cargoes.

### Packing Classes.

Arrangements are now in hand for the conduct this season of the fruit packing classes inaugurated by the Department of Agriculture in the different fruit centres.

The Fruit Division Instructors—Mr. H. A. Turner (Northern Tasmania), and W. C. Page (S. Tasmania)—will carry on the work as in previous seasons.

### Aphelinus Mali Parasite.

During last November the Fruit Division, through the courtesy of the W.A. Department of Agriculture, received a parcel of parasitised Apple twigs containing the eggs of the chalcid wasp (Aphelinus mali). This

insect is reported to have given very good results in the control of Woolly Aphis in New Zealand.

A number of insects were bred out from the material, and these were despatched to the various fruit centres for liberation.

It is interesting to record that evidence is to hand that the chalcids are establishing themselves under Tasmanian conditions. Specimens have been received of twigs infested with Woolly Aphis containing the husks of the dead aphids, and showing the holes of emergence of the newly hatched insects.

A number of the insects have also been bred out from parasitised wood obtained from an orchard where the chalcids were liberated in the Lilydale district.

**British Empire Exhibition.**

At a recent meeting of the State Fruit Advisory Board, consideration was given to a request received from the Secretary of the Australian Fruit Council for the supply of a quantity of fresh fruits for the British Empire Exhibition.

After the experiences of last season, it was unanimously resolved to convey to the Secretary that it was the Board's opinion that the best arrangement would be for the required quantities to be drawn from suitable consignments upon arrival in London.

**Export Control Bill Opposed.**

Consideration was also given to a draft of a Proposed Export Control Bill that was submitted to the Board from the Australian Fruit Council.

After a good deal of discussion, it was evident that the Bill in its present form would be **quite unsuitable to Tasmanian conditions.**

The following resolution was unanimously carried:—

"That this Board is opposed to the proposed Export Control Bill, as submitted, and would only support such legislation when representation on the control is proportionate to the quantities exported from the various producing States."

**Customs Regulations Attacked.**

A good deal of criticism was levelled during the meeting against the action of the Customs authorities in making certain alterations in the regulations governing the export of fruit and fruit products without reference to the Australian Fruit Council or State Boards. Members expressed themselves that in matters submitted to them for consideration by the Customs Department, their recommendations should be adopted, and no alteration effected without reference to the Council.

The following resolution was unanimously agreed to:—

"That this Board strongly protests against the principle of altering regulations pertaining to the export of fruit or fruit products without reference to the Australian Fruit Council and State Fruit Advisory Boards."

## TASMANIAN FRUIT EXPORT.

### 1,165,000 Cases Booked.

Hereunder we publish a list of the steamers lifting fruit from Hobart and Beauty Point this season.

| Steamer. | No. of Cases. | Port of Discharge. |
|---|---|---|
| **February.—** | | |
| Runic | 21,000 | Liverpool. |
| Esperance Bay | 56,000 | London. |
| Ormonde | 11,000 | London. |
| **March.—** | | |
| Ulysses | 35,000 | Liverpool. |
| Barrabool | 65,000 | London. |
| Maloja | 50,000 | London. |
| Ceramic | 70,000 | Liverpool. |
| Aeneas | 18,000 | Liverpool. |
| Port Caroline | 36,000 | Hull. |
| Beltana | 35,000 | London. |
| Demosthenes | 36,000 | Hull. |
| Moreton Bay | 54,000 | London. |
| **April.—** | | |
| Oronsay | 27,000 | London. |
| Mongolia | 36,000 | London. |
| Balranald | 80,000 | London. |
| Port Brisbane | 50,000 | London. |
| Ormuz | 21,500 | London. |
| Jervis Bay | 56,000 | Hull. |
| Persic | 46,000 | Liverpool. |
| Borda | 46,000 | London. |
| Euripides | 64,000 | London. |
| Orama | 19,000 | London. |
| **May.—** | | |
| Ascanius | 43,000 | Liverpool. |
| Ballarat | 40,000 | London. |
| Moldavia | 50,000 | London. |
| Hobsons Bay | 30,000 | Hull. |

In addition to these Hobart fixtures, the following steamers will load at Beauty Point:—

| | Cases. |
|---|---|
| March 2nd, Barambah | 25,000 |
| March 15th, Boorara | 25,000 |
| April 17th, Port Brisbane | 20,000 |

The Beauty Point programme has not yet been finalised, there is a possibility of another Commonwealth steamer being included in the programme.

The total accounted for in the foregoing figures is 1, 165, 000 cases.

## PECAN NUTS.

### Recommended for Growing in New South Wales.

Following upon a visit of inspection to the Tweed River district, Mr. W. J. Allen (the N.S.W. State Fruit Expert) stressed the need for utilising the land formerly occupied by Banana plantations, this industry having been considerably reduced owing to the damage wrought by bunchy top. Mr. Allen was of the opinion that some of the Banana country should be good for growing Pecan nuts, which branch of the industry he considered had excellent prospects. These nuts are being propagated at the Narara State Nursery, and although there are not many of the worked varieties available as yet, Mr. Allen thinks it will not be long before there is a good stock of trees for distribution. Some of these improved varieties were established at the Wollongbar and the Grafton experiment farms, and are progressing well as far as growth is concerned.

Mr. Allen recently saw in a Grafton garden a Pecan tree about 40 feet in height and 35 years old, the owner of which sold a surplus of 40 lb. to 50 lb. of nuts per year. These nuts, although very saleable, were about half the size of those of the improved varieties, and the trees took about ten years to come into bearing.

Mr. Allen is of the opinion, states the "Farmer and Settler," that this is one of the nuts that should be pushed in Australia, there being plenty of land on the North Coast suitable for its growth.

# The Apparent Scope and Limitation of Co-operative Marketing.

## Valuable Suggestions for All Interested in Organising.

*Specially written for the "Fruit World" by Dr. Redvers J. Blatt, of California and South Africa.*

CERTAIN FUNDAMENTAL PRINCIPLES of co-operative marketing, which seem to govern the apparent scope and limitation of co-operative marketing were laid down by the late G. Harold Powell, founder of the successful Californian Fruit Growers' Exchange (Citrus).

The extent to which organisations have adhered to these principles seem to be the limiting factor with regard to their success. On the other hand, most of the societies that have deviated from these principles have met with some sort of trouble. This does not mean that every co-operative marketing organisation must have the same set of rules. There may be many minor differences, and yet the organisations may be very successful. However, in every case there are certain **fundamental principles** that underline the policy of the organisation, hence minor differences do not make much difference.

It is just as well to mention here that the co-operative organisation differs fundamentally from the capital corporation, conducted for profit, which is organised to return an interest on the capital used in the business. The basis of administration, control, and the distribution of earnings, is the capital used in the business.

In a co-operative organisation, the basis of control is the membership, i.e., men; while in the stock corporation it is money. **Capital cannot co-operate; products cannot co-operate; only men can co-operate.**

Co-operation, as applied to agricultural efforts, literally means any group of farmers who associate themselves together, either in capital stock associations or as non-profit corporations, or as members of a voluntary unincorporated association of individuals.

There are about eleven fundamental principles of co-operative marketing, and each will be dealt with separately. These principles have guided the California Fruit Growers' Exchange, the Walnut Growers' Association, and the Almond Growers' Association. Many other organisations in California have modelled their by-laws according to these principles. Some have deviated somewhat from the following fundamental principles, but they have not been as successful as the above three organisations that have stuck rigidly to the following eleven principles:—

**THE article herewith is a valuable contribution at this stage to the subject of marketing Australian fruit, and the means for organising the growers towards that end.**

**The writer is Dr. Redvers J. Blatt, a talented South African horticulturist, who went to California, taking his degree of Doctor of Philosophy in the Agricultural College there with special honors in citrus culture. Dr. Blatt returned to South Africa via Australia, during January last.**

**The information in this article, "the apparent Scope and limitation of Co-operative Marketing" applies to Californian conditions: fundamental principles, however, are universal.**

**A summary of the conclusions as applied to Australian conditions would be (1) organise in sections according to the fruit grown where the need exists. (2) Economically sound objectives are necessary with efficient trained leadership and management. (3) Harmony, but not corporate union with those that sell or deal in the products.**

**A further instalment will appear in the next issue of the "Fruit World."**

### Eleven Fundamental Principles.

1. Organisation for marketing purposes can be most readily effected when conditions in the given industry are such that the need of improvement is quite generally apparent to those engaged in the industry.

2. Unless at the time of organisation the conditions are such that striking improvements are possible early in the life of the organisation, the organisation itself is likely to die from inertia, or succumb to attacks from outside interests.

3. The membership must represent sufficient volume of one product, or closely allied products, to enable shipments to be made in carload lots, depending on the product, and to effect a sufficient aggregate saving in the cost of marketing to more than counterbalance the expense of operation.

4. Membership in a growers' organisation should usually be limited to actual growers of the crop to be marketed, and must consist of persons whose interests are similar.

5. Definite provision must be made for financing the business of the organisation.

6. The benefits accruing from membership in the organisation should be distributed among the members in proportion to the value of the products handled for each.

7. The voting power may be based on individual (one-man, one-vote); volume of product; or shares of stock, in proportion to acreage.

8. A large co-operative movement should be founded on independent local units which federate for greater business efficiency.

9. Each organisation must possess—represented either in its membership or its employees—a degree of administrative ability and business acumen commensurate with the volume of the business to be transacted and the intricacy of the problems to be solved.

10. The details of handling and selling and distributing the crop must be adapted to the nature and volume of the product.

11. Loyalty of the individual members and mutual confidence among all factors in the organisation are absolutely essential to the permanent success of any co-operative enterprise.

These principles will now be considered in detail, and an endeavor will be made to point out why certain co-operative organisations have met with trouble by disregarding some of these fundamental principles.

**(1) Organisation for marketing purposes can most readily be effected when conditions in the given industry are such that the need of improvement is quite generally apparent to those engaged in the industry.**

There is no particular incentive for farmers or fruitgrowers to combine as long as they are receiving satisfactory returns for their products. But whenever the markets for agricultural products are depressed, the movement towards co-operative handling of farm products receives an active impetus. A co-operative organisation, if it is to be permanently successful, must originate from necessity, and must crystallise around a specific economic question.

The reason for its existence must lie in some vital service which it is able to perform. Prices below cost of production in the case of perish-

able products, accumulation of unsold products, depreciation of property values, and threatened financial disaster, have characterised the conditions which led to the formation of some of the co-operative marketing organisations of California.

This was true of the **citrus** fruit industry, the **Raisin** industry at two different periods, the dried **Peach** industry, and the **Almond** industry, while trying conditions, almost as bad as in the case of the above, among the **Walnut** growers, Turlock **Cantaloupe** growers, and Sebastopol **berry** growers, led to their forming co-operative organisations.

### Why Growers Got Together.

The following brief sketch will illustrate the circumstances that gave rise to co-operation among growers. The period between 1892-1893 was the most disastrous that the citrus fruit industry had ever experienced, due chiefly to the failure of speculative shippers to sell the year's crops at fair prices. As a consequence of the red-ink returns of 1893, the growers that year organised the Southern California Fruit Exchange, and proceeded to take the control of the marketing of their fruit into their own hands.

In the fresh fruit industry conditions were similar, the year's returns failing to pay the year's expenses, hence in January, 1901, the California Fruit Exchange was organised.

In the Raisin industry the demoralisation in prices was due to a system of shipping Raisins on consignment to Eastern (U.S.A.) brokers, hence in 1898 the Raisin Growers' Association was formed, and in the first year the price was 2¾ cents a lb., the price being only 3 cents a lb. the previous year. This organisation continued until 1904.

Then there was a period, with no general organisation of growers, during which the packers handled the crop as they saw fit.

Following this second period of depression, a new organisation, the California Associated Raisin Co., was formed in the spring of 1913, and has continued ever since.

In the dried Peach industry the price in 1915 was only 2½ cents a lb., approximately 1 cent below cost of production. This low price was due to the fact that the packers speculated with the crop, and influenced prices to their own advantage whether buying or selling. This condition of affairs drove the growers to organise the "California Peach Growers" in May, 1916.

Up to 1910 the Almond crop had been handled by a few San Francisco dealers, whose principal business was the handling of dried fruits, but the prices kept getting lower and lower, until finally they were below the cost of production. At this juncture the California Almond Growers' Exchange was formed, i.e., 1910, and ever since it has been a successful co-operative marketing organisation.

All these co-operative organisations originated from necessity, and were all started in times of depression.

**(2) Unless at the time of organisation, the conditions are such that striking improvements are possible early in the life of the organisation, the organisation itself is liable to die from inertia, or succumb to attacks from outside interests.**

The worse the conditions are at the time of organisation, the better the chance of demonstrating the value of co-operation, and since this improvement will invariably be expected soon after the formation of an organisation, the members, and especially the management, will have to do everything in their power to bring about improved conditions as soon as possible. Unless someone gives thought and effort unstintingly to the affairs of the organisation it cannot prosper, for very soon it will have to compete with existing organisations. In order, therefore, to keep the confidence and support of its members, an organisation

must improve rapidly,

thereby convincing its members that it will be to their advantage to remain with the co-operative organisation.

**(3) The membership must represent sufficient volume of one product or closely allied products to enable shipments to be made in carload lots, and to effect a sufficient aggregate saving in the cost of marketing to more than counterbalance the expense of operation.**

Before growers can even think of co-operation, their interests must be so large that there will be a considerable saving in overhead, etc., by the reduction of marketing costs to enable one man, or more, if necessary, to devote his full time in the interest of the organisation, and still show a profit to the growers.

By co-operation supplies may be bought wholesale at greatly reduced prices, but here again the volume of business must be large enough to show a substantial saving, otherwise co-operation is not justified.

All California horticultural products are placed in distant markets, hence shipments must be made in carload (i.e., truckload) lots, and usually to the full capacity as demanded by the railroad companies; furthermore, the boxes of fruit are securely packed and cleated, and must not be disturbed until finally removed, especially in summer when the cars (railway trucks) are iced.

The difference in freight rates on carload, and less than carload lots, would make the latter prohibitive. If cars were partially loaded at different points, it would be difficult to fit the responsibility for improper loading.

It is, therefore, essential that a local association be able to ship its product in carload lots. If a local association did not have a large enough volume of fruit to ship in carload lots, it would hardly be able to pay for a packing plant, since the cost would be prohibitive. The first thing a co-operative organisation will have to do is to demonstrate its **ability to reduce the cost of marketing,** and this is only possible by a large enough volume of products to reduce the overhead, by economical employment of labour, and large savings by buying packing supplies cheaper by sharing in part of the profits ordinarily obtained by traders.

The late G. Harold Powell has stated that, "It is not usually practicable in the Orange business, for example, to organise an association and build a packing house, unless there are at least 150 cars of fruit to ship; while G. H. Cutter, President of the California Fruit Exchange, maintains that, in the handling of deciduous fruits, there is little chance of a local organisation of growers being able to finance its operations if the output is less than 30 cars during a season. Just how large the volume of the product must be in order to insure its economical handling depends somewhat on the nature of the product. The advantages of having one product, or closely allied products, is interest is concentrated, and complications arising from shipping unlike commodities in the same car are avoided.

**(4) Membership in a growers' organisation should be limited to actual growers of the crop to be marketed, and must consist of persons whose interests are similar.**

Greater concentration of thought, greater unanimity of purpose, and more ready determination and execution of policies are possible in an organisation composed of growers of the same product. Those whose interests centre in the same crop as the chief product of their agricultural effort have much more in common than have a group of persons each of whom is primarily interested in a different crop. The members should be acquainted, and have confidence in each other. If any organisations are formed by bankers, fruit dealers, or others who promote an organisation for the purpose of making a profit from it, such organisation cannot last, since there is a lack of common interest.

Membership in a co-operative organisation should carry with it a responsibility on the part of the member strong enough to carry it through adversity; such membership is only possible from actual growers, in which case it is much easier to keep interest alive.

Co-operative organisations can more easily handle one product, or closely allied products, than a diversity of products, because of the greater facility with which shipping may be accomplished and trade connections established, furthermore a common interest in the production, and marketing of some one specialised crop serves as a potent force in binding together the members of the organisation.

A common brand, e.g., "Sunkist" or "Diamond Brand," or "Sunmaid," can be advertised much more economically, while greater efficiency is obtained by specialisation. Every different crop has to be handled differently, and packing houses differ materially in the different organisations.

Not only should the members of a co-operative marketing organisation be interested in the growing of the same product, but a given local of unit of organisation should be composed of persons living within a limited area, for members become better acquainted, and their aims and ideals are the same.

The organisations of growers and independent shippers have never yet succeeded, as was proven by the ultimate failure of—the Orange Growers' Protective Union, incorporated at Los Angeles in 1885; the Fruit Growers' Union of Southern California, 1891, organised in Los Angeles County; the Riverside Orange Trust, 1891, and the Riverside Orange Growers and Packers' Protective Association; all these operated in 1892 and 1893. Real success was only possible when the growers themselves co-operated alone, as was proven from 1895 to 1903, during the life of the Southern California Fruit Exchange. However, this organisation again formed a trade alliance in 1903, with the commercial men under the name of the California Fruit Agency, which was anything but a success, due chiefly to the different marketing methods of the Independents or packers, and those of the Exchange, hence the Southern California Fruit Exchange started afresh as an independent organisation in 1904, but its name has since changed to the California Fruit Growers' Exchange, due to the increased citrus acreage in Central California, and from the time the growers co-operated without the independent shippers, it has developed into the most successful co-operative marketing organisation in U.S.A.

Attempts to combine the trading interests of fruitgrowers and fruit dealers have also been made in the deciduous fruit industry. Both unions, the first in 1886, as the "California Fruit Union," and later in 1894 as the "Fruit Growers and Shippers' Association," ended disastrously. The result was the formation of the California Fruit Exchange, in 1901, which arranged for the handling of their products by the agents maintained in the East by the Southern California Fruit Exchange.

In June, 1894, the California Raisin Growers and Packers' Company was incorporated, with a board of directors consisting of five growers and five packers, but price cutting of outside packers again led to disaster, hence the growers formed an organisation of their own in 1898. In order to prevent the stock reaching unfavorable hands, the Sunmaid Raisin Co., and California Peach Growers have each placed the control of their policies in the hands of a board of 25 voting trustees elected for a period of seven years. No provision, however, is made to insure that a majority of the stock, at the end of the seven years, will be held by men who will safeguard the growers' interests.

The California Olive Growers' Association has attempted to overcome this difficulty by providing for the issue of two kinds of stock (common and preferred), restricting the sale of common stock to growers, and providing that the total amount of preferred stock actually issued or contracted for any time shall never exceed the amount of two-thirds of the total common stock then issued.

In the circular of questions and answers formulated by Ralph Merritt, manager of the new organisation of the Sunmaid Raisin Growers, the writer states that this new organisation has adopted similar plans to the Olive Growers. The Sunmaid Growers' Association has increased its capital from $3,400,000 to $8,000,000, in order to put the organisation on a sound financial basis. **The additional money will be obtained through the bonds issued on the properties,** amounting to approximately $2,100,000, and from the sale of preferred stock amounting to $2,500,000, making the total of the necessary $8,000,000. In creating a financial plan, the directors have given consideration to the following four points:—

1st. That the Association be genuinely co-operative from every viewpoint, in order to secure all rights given to form organisations under the Federal laws.

2nd. That the present stockholders be given opportunity of adequate return for their present investment.

3rd. That new capital be invited on the basis of maximum protection and satisfactory return.

4th. That the revised plan be suited to the increasing tonnage and growth of the business.

If the stock in the present organisation were sold it would necessarily follow that each stockholder would have the right to vote upon matters of the Association's policies and officials. This is one of the reasons why the present organisation has not heretofore been able to secure the benefit given by Federal law to the co-operative organisations.

A large stock issue would mean the possibility of even greater outside control, and it is not impossible that large blocks of growers' stocks might be sold to men who have not the growers' interests at heart. Therefore, to comply with the Federal law, that all voting power should be solely in the hands of the members of the association, and in order to give each member the one vote which a co-operative organisation should have, it has been decided to incorporate the Sunmaid Raisin Growers' Association of Delaware.

This new organisation will be the manufacturing agency of the Sunmaid Raisin Growers, and will be solely controlled by them in voting power, through the holding of all the common stock, which is also the only voting stock, in the Treasury of the California Corporation. The Delaware Association will hold all the properties of the Sunmaid Raisin Growers, and these properties will be bonded. This association will also issue preferred stock, the present stockholders of the California Corporation being paid in full at par for their present holdings, and in addition they will receive two stock dividends, the first to cover the proportionate holding in the earned surplus in the California Association, and in addition a stock dividend of approximately 8 per cent. to cover the earnings of the association in the past year. One of the underlying principles in the new organisation of the Sunmaid Raisin Growers is to give the grower a chance to obtain more stock than in the past, and to encourage him to bear more responsibility, and to keep the voting in the hands of the growers.

(To be continued.)

## Oiled Paper for Packing Apples.

U.S.A. growers and packers are finding, with increasing emphasis, that the use of oiled paper for packing Apples is a payable proposition. It is estimated that about 15,000,000 boxes were packed with Apples wrapped in oiled paper, the fruit carrying much better, and with a great reduction of "scald."

# Cold Storage In Australasia

## COLD STORAGE EXPERIMENTS.

### Oiled Wrappers Prevent Scald in Granny Smith Apples at Batlow, N.S.W.

EXPERIMENTS in connection with "scald" on cold stored Apples were carried out recently at Batlow, N.S.W.

A tabulated record of the experiment has been prepared, and is published hereunder. On this subject the Secretary of the Batlow Co-operative Cool Stores Co. Ltd. (Mr. H. V. Smith) writes:—

"Regarding scald on Granny Smith Apples, we carried out experiments during the 1924 season, the results of which may be of interest to readers of the 'Fruit World.' Four bushel cases of this variety were held experimentally to determine the value of wrapping in oiled wraps. The latter contained not less than 15 per cent. by weight of oil. Commercially some 1,200 cases of Granny Smith Apples were held in oiled wraps, the fruit being disposed of in October, November and December. It was very favourably commented on, and in no instance was there any complaint of scald.

"The oiled wraps supplied by Messrs. Spicers & Detmold, Melbourne, gave just as good results as the American.

"This season—the use of the oiled wrap on Granny Smith Apples placed in cool store will, in this district, be general practice—the variety mentioned is the chief late Apple grown here. Quite apart from the complete absence of scald—(when taken out of store and ten days later)—this variety, when packed in oiled wraps, presents a very much brighter appearance than when ordinary wraps are used; in fact, there is no comparison, and on this score alone the oiled wrap more than pays for itself when used on a late, high priced variety."

A record of the experiments is as follows:—

**SCALD EXPERIMENTS, 1924.**
**BATLOW, 31st DECEMBER, 1924.**

Variety of Apples used—Granny Smith, size 3in.

CASE No. 1—Grower, H. V. Smith.

| Picked | Packed. | Placed in Store. | Removed. |
|---|---|---|---|
| 26th April | 14th July | 15th July | 9th Dec. |

CASE No. 2.—Grower, H. H. Robinson.

| Picked | Packed. | Placed in Store. | Removed. |
|---|---|---|---|
| 30th May | 29th June | 4th July | 9th Dec. |

CASE No. 3.—Grower J. I. Stuart.

| Picked | Packed. | Placed in Store. | Removed. |
|---|---|---|---|
| 15th May | 4th July | 7th July | 9th Dec. |

CASE No. 4.—Grower, F. L. B. Artlett.

| Picked | Packed. | Placed in Store. | Removed. |
|---|---|---|---|
| 15th May | 3rd June | 18th June | 9th Dec. |

CASE No. 1. (No Wraps).

On Removal, 9th December.—Sound 71, Unsound 25, Scald nil, Slight Scald 3, Total 99.

15th December.—Sound 4, Unsound 1, Scald 45, Slight Scald 25, Total 75.

19th December—Sound 3, Unsound 2, Scald 45 (12 Unsound), Slight Scald 25 (Unsound 3), Total 75.

CASE No. 2 (Ordinary Wraps).—

On Removal 9th December.—Sound 52, Unsound 10, Scald nil, Slight Scald 24, Total 86.

15th December.—Sound 14, Unsound 1, Scald 40, Slight Scald 21, Total 76.

19th December.—Sound 9, Unsound 6, Scald 40 (19 Unsound), Slight Scald 21 (2 Unsound). Total 76.

CASE No. 3. (Spicers & Detmold, Melbourne, Oiled Wraps).

On Removal 9th December.—Sound 86, Unsound 3, Scald nil, Slight Scald 1, Total 90.

15th December.—Sound 82, Unsound 2, Scald nil, Slight Scald *3, Total 87.

19th December.—Sound 75, Unsound 9, Scald nil, Slight Scald *3, Total 87.

CASE No. 4.—"Caronite" Imported (American), Oiled Wraps.

On Removal 9th December.—Sound 75, Unsound 5, Scald nil, Slight Scald nil, Total 80.

15th December.—Sound 68, Unsound 1, Scald nil, Slight Scald *6, Total 75.

19th December.—Sound 61, Unsound 8, Scald nil, Slight Scald *6, Total 75.

*Very slight scald—not sufficient to render fruit unmarketable.

**Comments on Results.**

The Apples wrapped and stored in oiled wraps presented a very much brighter and more attractive appearance than those in ordinary wraps, and unwrapped. The wraps were removed at the first examination—9th December. The slight scald noted in Apples ex oiled wraps—occurred as a very small area—not more than one inch in diameter—mostly at the stalk end—and may have been due to the wrapping paper not covering the fruit sufficiently.

The Apples—unwrapped and in ordinary wraps—were unsaleable and practically unusable six days after removal from stores—except for the small number of Apples listed as sound.

Ten days after removal from stores the Apples ex oiled wraps were (except for unsound specimens) to all appearances as good as when first removed.

The experiments will be continued this coming season. Oiled wraps cost approximately 3d. per bushel case more than the ordinary wraps, and can be obtained from the Batlow Co-operative Packing Company Ltd.

Their use on Granny Smith Apples is strongly recommended.

Batlow Co-operative Cool Stores Co. Ltd.,
(Sgd.) H. V. SMITH,
Secretary.

31st December, 1924.

## VICTORIA.

### Harcourt Cool Store.

The annual meeting of the Harcourt Co-operative Cool Stores was held on 7th February. The directors' report stated that the Ruston Hornsby crude oil engine, recently installed, had been running since 1st July, and had resulted in a saving of £227 for fuel, compared with the corresponding term last year, when the steam engine was in use.

Satisfaction was expressed with the work of the engineer, especially in connection with the installing of the new engine, when his general knowledge was invaluable.

No definite results had been obtained from oiled paper as a scald preventive. Messrs. Eb. Eagle, J. H. Lang and E. Pritchard were re-elected as directors.

The balance-sheet showed paid-up capital, £14,375; Government advance, £18,762; value of assets, £34,565; £480 was spent in fuel, and £790 in wages.

The shareholders generally seemed well satisfied with the result of the year's operations.

### Fruitgrowers' Cool Stores Association of Victoria.

The report of the quarterly meeting of the Fruitgrowers' Cool Stores Association of Victoria, at which several important matters were discussed, has been unavoidably held over till next issue.

# Queensland

## Interesting News and Notes. "League of Freedom" Formed

*(By Our Special Correspondent).*

AT the time of writing the weather conditions are improving. Bright sunny days are the order, and have been the means of producing colour and sugar contents to the Grape crop, which otherwise would have been an absolute failure.

In the Stanthorpe district Peach growers have had a disastrous season. The December and January rains were responsible for the spread of "brown rot"; on top of this the fruit that was marketable met with glutted markets everywhere.

The Granite Belt growers sent to Brisbane market during January 2,600 tons of fruit as compared with 1,700 tons during January last year. As a result prices have been very low. Apples, for instance, which last year were worth 12/- and 16/- per case, are now being sold at from 8/- to 10/- per case. The Apples throughout the Stanthorpe district are superior to those produced in past seasons, despite the fact that a hail storm swept the district early in the season. Immediately after the hail storm, growers got to work and thinned out all hail marked fruits, with the result that the remainder was well grown and of very good quality.

### Tomato Pool.

#### One-floor System Abandoned.

The Tomato floor that was being run by the Committee of Direction of Fruit Marketing was short-lived. The metropolitan growers did not agree with the proposition, and refused to send their Tomatoes to the floor, but continued to send to their respective agents. The Committee issued a summons against Herbert Lover Wool, fruit merchant, and the hearing took place on January 30th. The magistrate, after hearing argument for both sides, reserved his decision.

It is pending this decision that the one-floor for Tomatoes has been abandoned, the Stanthorpe growers agreeing to its closure.

### Claimed Remedy for Bunchy Top.

It is reported that a Banana grower at Burringbar claims to have discovered that, by care and cultivation, together with the use of Black Leaf 40, Bunchy Top in Bananas can be kept within such limits that the industry can be profitably conducted.

### Soldier Settlements.

#### £250,000 Indebtedness Written Off.

The report of the Soldier Settlement Re-valuation Board has been received by the Government, and it has been decided to write off the unpaid interest owing by all soldier settlers in Queensland, and also to allow a certain period of free interest until areas come into bearing.

In connection with the Beerburrum Settlement, all unpaid interest is to be written off up to December 31st, 1927, and interest charged thereafter as from January 1st, 1928.

In respect to the Stanthorpe settlers (deciduous fruit culture being the principal industry) as it takes "five years for deciduous trees to come into full bearing," unpaid interest is to be written off, and charged as from the expiration of five years from the date of planting of the trees on each individual holding.

The Stanthorpe settlers are wondering who is the person responsible for the report that deciduous fruits are in full bearing at five years. Many of the men have been on their holdings six years, and there are no signs of any trees being in full bearing yet. Tasmanian visitors to the districts state that trees are not in the full bearing stage until they are from 10 to 12 years of age. Taking a line through this, it is time that practical men were given a seat on a Board dealing with soldier fruit settlements, or to ask practical growers to give evidence before them. If this were done, many little difficulties would be overcome, which would be more satisfactory to the settlers.

### League of Freedom for Fruitgrowers.

#### Opposition to Committee of Direction.

A League of Freedom is being formed in Queensland. The proposed objectives of the League are as follows: —

(1) Conservation of individual freedom of fruitgrowers of Queensland.

(2) The extension of fruitgrowers' interests by means of co-operative methods.

(3) The abolition of the arbitrary and compulsory powers of the Committee of Direction of Fruit Marketing.

The first meeting of the League of Freedom was held at Ballendean on February 12th, over 200 growers attended. The proceedings were of a lively nature throughout. The essence of the meeting was to the effect that the convenors were not up against the Committee, but they were going to demand that the powers of that body be modified and limited. A motion, forming the League of Freedom was put to the meeting, and carried by a very large majority.

The opinion was expressed at the meeting that the growers already have a League of Freedom in the form of Local Producers' Associations, where every grower was a member, and free speech was the order of the day. If growers did not attend their association meetings they had themselves to blame if legislation was passed with which they did not agree.

### Stanthorpe's Magnificent Show.

The Stanthorpe district excelled itself on February 4th, 5th and 6th in providing at its Annual Show Carnival a display that has been characterised by those in a position to judge as the equal of anything in Australia. It is the wonderful display of deciduous fruits that has made Stanthorpe famous. Visitors come from all over Queensland to see the abundance of beautiful varieties of the many temperate fruits which cannot be seen anywhere else in the State.

The chief attraction was the District exhibits, the packed cases of each kind of fruit was an eye opener to many visitors. The winner this year was "Broadwater" 1st, "Ballandean" 2nd, and The Summit 3rd.

The "Russell" Cup was this year won by E. Draheim, and was for the best six cases of Apples packed for export. This class brought forth eight entrants, and only a few points separated the lot.

The "Courier" Cup resulted in a dead heat, Messrs. H. N. Slaughter and A. Chapman each gaining 90 points out of a possible 100. Mr. A. H. Paget was next with 89 points. The prize was for the best 4 cases of dessert, graded and packed according to packs being taught by the Department of Agriculture. Eight growers competed.

The class for pupils attending the Department of Agriculture Fruit Packing Classes was well filled, over 20 entries were in the wrapping class, and 12 entries in the packing class.

The wrapping prize was won by O. J. Slaughter 1st, H. Dunn and E. Phillips equal 2nd. The packing without paper prize was won by G. Phillips 1st, Harry Dunn and E. Draheim equal 2nd. The packing in this class was very favourably commented upon by the public.

Altogether 370 exhibits were shown in the case sections, and they were displayed to distinct advantage. The principal prize winners were:—

**Cases.**—E. Draheim, H. N. Slaughter, A. H. Paget, A. C. Chapman. **Plate**—R. Newlands, E. Draheim, W. Pike, A. H. Paget.

Messrs. Draheim, Paget and Slaughter received special mention for the splendid packing and displaying of their exhibits.

The judges were Messrs. F. Chilton (Sydney), J. Arthur, and W. Rowlands (Queensland Fruit Marketing Instructor).

Mr. Chilton, expressing his views after adjudicating, said:—

"One or two outstanding features were the excellent packing and quality of the numerous case exhibits. This fruit would be a credit to any show in Australia. The hand of Mr. Rowlands, the Packing and Marketing Instructor, could be seen everywhere. Looking back over the last four years, one is struck by the large increase in the case section. In 1921 20 cases were exhibited, and all kinds and ways of packing were used. This year 370 exhibitors, and every case packed on a system that it would be hard to fault anywhere, being both uniform and attractive. The increase in the case exhibits could be traced to the advent of the grading and packing classes inaugurated by the Department of Agriculture, which has been carried out by Mr. Rowlands."

### Warwick Show.

The Warwick Show was held on the 12th, 13th and 14th of February. The fruit exhibits were not so numerous as at Stanthorpe. But what was lacking in quantity was made up in quality. The chief prize winners were H. N. Slaughter, E. Donnolly, W. Flitcroft, E. Williamson Dean, and A. Chapman.

### Installation of Grader.

Mr. A. H. Paget, of The Summit, has installed a Guider Fruit Grader into his up-to-date packing shed. This is the first grader to be used in this area. Mr. Paget has fifty acres of orchard in bearing, and he finds with the machine grader he can get the maximum of efficiency with the minimum of energy. He has also installed a wiring machine (Gerrard).

When sending fruit to Northern Queensland, it is essential to wire the cases. Many are the reports of ullaging and pillaging of cases.

### Sydney Royal Easter Show.

#### Stanthorpe Not Showing.

It will be remembered that at the last two Sydney Shows Stanthorpe has been represented by a pyramid of Apples. The first year they obtained second prize, last year fourth prize. The Stanthorpe District Council turned it down this year, owing to financial reasons. The freight, cold storage, etc., are too heavy. When Stanthorpe has the fruit that would take beating anywhere in Australia, it seems short-sighted to let the prize slip; in addition, the entry gives the district a great advertisement. However, it is rumoured that The Summit will compete on its own; if they decide to do so, they will be hard to beat.

### Fruit Fly.

#### School Children Interested.

Professor Goddard and Mr. H. Jarvis, Entomologist, have been responsible for suggesting to the head masters throughout the Granite Belt that the fruitgrowers' children could be of material help in the fruit fly campaign now being carried on in the district. Lectures were given in the schools, and the children were asked to assist by picking up as much fallen fruit during their holidays and before and after school. In addition prizes were promised to the boy or girl in each school gathering the most fruit and fruit flies.

At a count at Dalveen by Inspector Stevens, it was found that 12 children had caught over 4,000 flies during the month. If the same interest is continued fruit fly will be scarce in the Stanthorpe area.

## FOREIGNERS IN QUEENSLAND.

### Italians Rapidly Increasing in Sugar Districts.

#### Australians are being Pushed Out.

THE rapid increase in Italian immigration into Queensland is arousing public interest in this State, writes the Queensland correspondent of the Melbourne "Argus" on January 26. There is as yet no considerable Italian population in Queensland, the total number of this nationality being probably only about 4,000, but there has been such a quickening in Italian immigration in the last few months that it is felt the position should be carefully watched to prevent undesirable complications. In 1920, 81 Italians arrived in Queensland; in 1921, 412; in 1922, 1,234; in 1923 the number of immigrants dropped to 288, and in the first nine months of 1924 the figure rose to 632.

The increased volume of immigration during the last few months suggests that before long the figures will reach substantial proportions. The Queensland climate suits the Italians particularly well, and as most of those who have come to Queensland have proved successful, the flow of immigration will probably increase rapidly unless checked by the Government. There is no disposition to quarrel with the type of Italian coming to the State. Many of them are North Italians, and all of them seem to show a preference for outdoor life and for productive effort.

The majority of them begin work in the

**sugar-growing districts**

as cane-cutters, and by a system of co-operation which has been developed among the Italians of the north they soon pay a deposit on a cane farm. Often the deposit is a small one, but by living frugally and working hard the Italian is able to make substantial payments towards the reduction of principal. Often Italians undertake to pay annually as much as half their net profits towards reduction of mortgages, **and in a few years many of them have become prosperous landed proprietors.**

Whatever sentiment there is in Queensland against the immigration of Italians is based on the following considerations:—

(1) Queenslanders desire the State to remain primarily British and as British immigration is not brisk, the entry of large numbers of South Europeans may upset the balance it is desired to maintain.

(2) **The Italians show a tendency to form communities of their own and to resist absorption.** This tendency even manifests itself in segregation of northern from southern Italians.

(3) **The Italians are devoting their attention almost exclusively to the sugar industry, which is already threatened with over-production,** and any expansion of which will reduce the profits of those who are already in the business.

(4) It is feared that if any considerable proportion of Italians become engaged in sugar-growing the case for the protection of the industry will be weakened in the eyes of the Federal Government by reason of the foreign element in it.

## THAT SUGAR EMBARGO.

### Will It Be Permanent?

The Premier of Queensland (Mr. Theodore), commenting on the announcement by the Prime Minister that the continuance of the embargo for another three years had been decided by Cabinet, stated that the sugar industry was faced with a critical situation, as there would be an excess of 150,000 tons for export. . . . "I say emphatically," continued Mr. Theodore, **"that the embargo, even with the additional conditions, is infinitely preferable to a customs duty."**

**Fruit for Bremen, Germany.**—With the object of organising the export of Australian fruit to the port of Bremen, Germany. Mr. H. Rinne, representing Fruchthandel Gesellchaft, Bremen, is now in Victoria. Mr. Rinne states that large shipments of fruit from America, Spain, Italy, Asia Minor, and other parts of the world are regularly received at Bremen, and he hopes to place such information before growers and shipping companies as will ensure that Australian fruit is also despatched there.

Fortune Teller: "You are married, and you love your husband. But I see a dark woman between you. She follows your husband everywhere!"

Client: "Heaven help her! My husband is a postman!"

## WIRE STRAPPING FOR FRUIT CASES.

### Approved for Local and Export Trade.

### Expert Opinions.

THE use of wire-strapping for cases containing fruit exported from Australia is gaining in popularity.

As regards Apples, a firm of London brokers has written recommending the strapping of export Apple cases, and while a few shippers have been wiring their export cases for a number of years, it is reported this practice is being greatly increased this season.

There is no doubt but that the wiring of fruit cases will greatly reduce the loss to the Australian shippers in ullage and damage, as for many years the system of wiring fruit cases for export has been used by other countries to great success.

All the care possible can be taken in packing, grading and supervision; however, with the many handlings, both locally and after the fruit arrives overseas, unwired cases become broken, and consequent damage and small realisation of value obtains.

In investigating the methods of wire strapping, it has been found that the best results are obtained by placing the wires 1¾in. from each end of the case, and in fact the New Zealand Export Specifications provide that all cases shall be strapped in this manner.

The wires so placed practically prevent any breakage of the case, and being placed close to the end prevents any damage to the fruit from pressure.

We show on this page two photographs showing the proper and improper method of strapping.

### A London Viewpoint.

Messrs. T. Walton Ltd., Fruit importers of Covent Garden, write thus:—"All cases of fruit from America are wired for shipment, and we strongly recommend shippers in Australia to wire their cases, as this wiring securely fastens the cases, thereby making the package practically impregnable from breakage."

### Wire-Strapping in New Zealand.

The National Federation of Fruit and Potato Trade Associations, London, report thus:—

"The present system of packing Apples is unsatisfactory, and we strongly recommend that the American system as now followed by the New Zealand growers be universally adopted in Australasia.

New Zealand cases are very good, well made and neat, but being of soft wood they would not stand the handling without the wires."

### Victorian Railways Opinion.

After giving helpful information regarding the transport of citrus from South Australia to Melbourne, in which instances of the benefits of wire strapping were demonstrated, the Goods Superintendent of the Victorian Railways concludes,—"I would strongly recommend that action be taken to induce all senders of citrus and other fruits to have their cases wired."

## SHOWS TO COME.

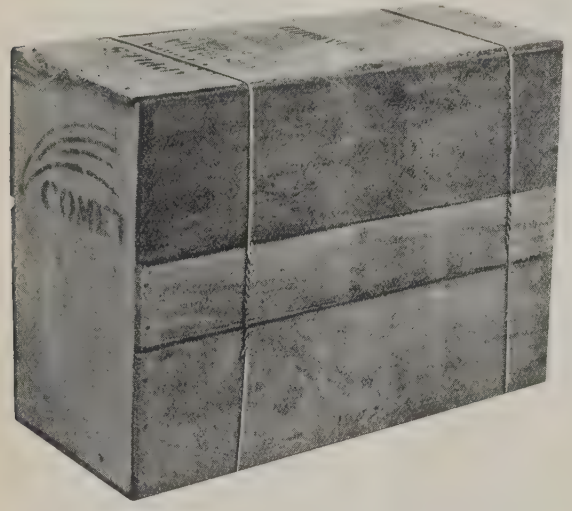
### Victoria.

| | March |
|---|---|
| Somerville | 11 |
| Diamond Creek | 13 |
| Yarra Glen | 18 |
| Ringwood | 20 & 21 |
| Red Hill | 25 |
| Bacchus Marsh (Fruit, flowers and Vegetables) | 28 |
| Garden Week, Melbourne | 30 to April 4 |

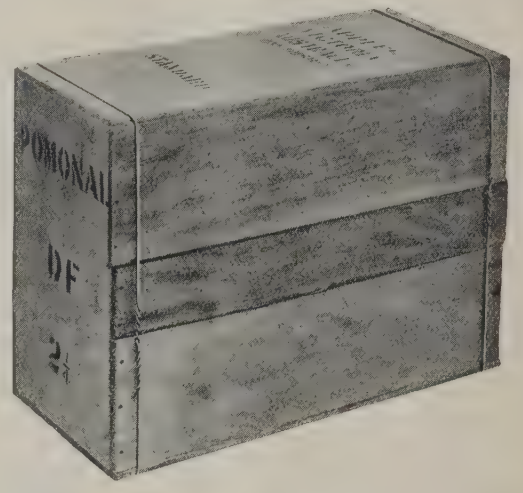
### New South Wales.

Agricultural Societies' Shows.

| | March |
|---|---|
| Bega | 3, 4 |
| Inverell | 3, 4, 5 |
| Tumbarumba and Upper Murray | 10, 11 |
| Mudgee | 10, 11, 12 |
| Hunter River | 11, 12, 13, 14 |
| Batlow | 17, 18 |
| Crookwell | 19, 20 |
| Rydal | 20, 21 |
| Blayney | 24, 25 |




Incorrect Method. The wire strapping is too far from the ends of the case.




Correct Method. The wire strapping should be 1¾ inches from the ends of the case.

### A Grower Fleeced.

Mr. W. P. Coleman writes us from "St. Brelade," Somerville (Vic.), that last October he ordered and paid for 600 second-hand cases from a merchant in Brunswick, and had received only 312 up-to-date, and can get no satisfaction. From his letter we gather that he knows of others who have been taken down in this way.

This should serve as a warning to growers who can have the "merchant's" name and address by writing Mr. Coleman direct.

## DUTY ON SOFTWOOD CASES.

### Increase Vigorously Opposed.

At a sitting of the Tariff Board in Melbourne during February vigorous opposition to the proposal to increase the duty on imported softwood cases by 6d. per case was expressed by representatives of South Australia, Victoria, and Western Australia.

The speakers included Messrs. Morant and Downie (South Australia), Vasey, Pennifold, Cook and Boardman (Victoria), and Gregory, M.H.R., of Western Australia. Mr. C. H. Tutton, of the Oversea and Interstate Trading Co., gave valued Technical evidence.

## QUEENSLAND.

### Compulsory Control Policy Denounced.

A largely attended meeting of fruitgrowers was held at Brisbane on February 13, when the policy of the Committee of Direction was denounced. A motion that a farmers' produce belonged to himself until he or his agents disposed of it was agreed to.

One grower stated he would go to jail for six months or six years before he would pay the levies.

## GARDEN WEEK.

### Melbourne's Largest Horticultural Event.

Garden week is being conducted at Wirth's Olympia, Melbourne, from March 30 to April 4. Flowers, fruit and vegetables will be shown in abundance. The funds are in aid of the Cronin Memorial Horticultural Scholarship. The President is the Right Hon. the Lord Mayor of Melbourne, and the Hon. Sec., Mr. R. E. Boardman, A.F.I.A., 9 Queen-street, Melbourne.

**Red Hill (Vic). Railway Estate.**—This estate, which is close to the railway station, cool store, Post Office and general stores, is being subdivided into lots from 7 to 27 acres, a considerable portion of which is cleared. The average rainfall for the last 23 years is 37 inches, and the soil, which is a rich red to black volcanic, naturally drains well. The district, which is suitable for all kinds of cultivation, is specially adapted for Apple, Pear, Passion-fruit, Strawberry, Potato, Onion, and Vegetable growing. By visiting the Red Hill Show, which is to be held on the 25th March, the quality of the fruits and vegetables which the district is capable of producing will be seen. Exceptionally easy terms are offered, £10 deposit, £1 month at 6 per cent. Particulars and illustrated plan will be sent free by writing to Mr. Geo. Higgins, Red Hill (Vic.). Attention of readers is drawn to advertisement which appears on page 130 of this issue.

## BOUNTY ON GRAPES NOT WANTED.

Although the Federal Cabinet has agreed to guarantee exporters of Ohanez Grapes against loss to the extent of 4/- a case (provided the net return does not exceed 14/- a case), the Western Australian State Fruit Advisory Board decided that as the trade had been successfully established for many years, no bounty was necessary for Western Australia, and further that such a bounty might lead to the export of inferior fruit.

## GOVERNMENT VENTURE ABANDONED.

### Shipping Line to be Sold.

The Federal Government has decided to sell its line of steamers, which are losing enormous sums of money. The losses are estimated at about £12,000,000.

**HAMBURG**
(GERMANY).

**Ph. Astheimer**
**And Sohn,**
**Fruit Brokers . . and Auctioneers**
(GERMANY)
Established 1863.
Largest receivers of Australian, Tasmanian, and American APPLES.
**Foreign Apples a Speciality.**

## PERSONAL.

Mr. A. T. Booth, Secretary of the Mount Barker Fruitgrowers' Co-op. Society Ltd., sails for England per s.s. "Runic"—the first boat which is taking Westralian fruit from Albany. As a result of his enquiries, it is hoped there will be improvements in the export trade.

The Government appointments to the Federal Dried Fruits Export Control Board are announced in this issue. Mr. W. C. Thomas is managing director of W. C. Thomas & Sons Pty. Ltd., the well-known Flour Millers and Grain Merchants. Mr. A. F. Bell is managing director of Robert Harper & Co. Ltd., and Mr. Whitehead recently retired from the position of manager of the Bank of Australasia, Adelaide.

The first meeting of the board will be held on Tuesday, March 3rd.

## LONDON PROSPECTS GOOD.

### Suggestions for Improving the Trade.

### Grade Designations Criticised.

In a letter to Mr. J. H. Lang, of 1924, Mr. B. Gerald, of the firm of Gerald Da Costa, fruit broker, of Covent Garden, London, writes, inter alia:—

"We do not anticipate any competition from America by the time your Apples arrive on our market, more especially if the early arrivals are in good condition.

"Re last season's 'blemished' fruit.—The prices ranged from 6/- to 14/-, the latter price being due to the generally short season, and to the demand for fruit notwithstanding its quality, being greatly in excess of the supply. Undoubtedly the sending of the 'blemished' fruit did a lot of harm. . . .

"Dealing with grading and packing, the method adopted by the majority of Harcourt growers is generally satisfactory, and no benefit would accrue by making a change. To our mind the result of the official instructions sent out by the Commonwealth authorities have made some boxes of Australian Apples appear to have come from a printing office, as there is far too much branding and marking on the cases.

"The grades 'Special,' 'Standard' and 'Plain' are, in our opinion, unnecessary. You can make them whatever grades you like, but let the markings be those to which our trade is accustomed. We have received shipments from America for many years under three grades—'Extra Fancy,' 'Fancy,' and 'Choice,' and if Australia wants to follow suit, why not let them adopt the same grading. All these different grades tend to confuse buyers, and it is very difficult indeed, particularly when firms like ourselves, make forward contracts for export to northern countries, and have to specify the grade we are selling, to explain the differences in them.

Outside the Harcourt district there are many improvements that can be suggested in the 'get up' of your fruit. Although the packing is reasonably up to a standard, a deal of faulty fruit is shipped.

"The improvement in the box is in itself a very important factor. We want a clean cut shape box, smooth on all sides, with a neat stencil in a prominent position, giving the various particulars to apply to your Government Acts. The name of the maker of the box and other sundry details (which some of the shippers are so fond of adding) are unnecessary."

**Abridged Reports.**—We very much regret that owing to exceptional pressure on space, we have been compelled to reduce reports of conference meetings and deputations. If any vital details have been omitted, will those concerned please communicate with the Editor, and the matter will be put right next issue.



# THE "Sunraysed" Courier



### FEDERAL DRIED FRUITS EXPORT CONTROL BOARD.

**Commercial Representatives:**
A. F. Bell, E. S. Whitehead.
**Government Nominee:**
W. C. Thomas.
**Growers' Representatives:**
J. J. S. Scouler, Red Cliffs, Vic.
H. D. Howie, Renmark, S. Aust.
A. L. Johnston, Mildura, Vic.
A. Yeates, Millendon, W.A.

### VICTORIAN DRIED FRUITS BOARD.

**Commercial Representative:**
One to be appointed, who will act as Chairman.
**Government Nominee:**
One to be appointed.
**Growers' Representatives:**
Jas. Milne, Red Cliffs.
E. T. Henderson, Mildura.
A. Lochhead, Irymple.

### SOUTH AUSTRALIAN DRIED FRUITS BOARD.

**Commercial Representative:**
L. N. Salter (Chairman).
**Government Nominee:**
G. A. W. Pope.
**Growers' Representatives:**
H. D. Howie, Renmark.
H. G. Evans, Renmark.
H. Kay, McLaren Vale.
**Secretary:**
N. W. Twiss.

### AUSTRALIAN DRIED FRUITS ASSOCIATION.

**Board of Management.**

H. D. Howie, Renmark.
T. C. Rawlings, Mildura.
J. B. Murdoch, Waikerie.
J. Gent, Nyah.
G. Kitchen-Kerr, Red Cliffs.

Australian General Secretary—W. N. Sumner.

South Australian Secretary—Stan. Oldham.

**London Manager:** W. P. Caro.

## FUTURE SCOPE OF A.D.F.A.

**"Must Retain the Organisation." Statement by Chairman H. D. Howie.**

OWING to the recent State and Federal legislation, and the constitution of Boards to control home and export marketing, there has arisen a good deal of speculation as to the future scope of this Association.

In some districts it has been freely circulated that the A.D.F.A. will now cease to exist, and growers have in some cases disposed of their Apricots to "outside" buyers under the impression that they will be free to operate independently, which has led to confusion in the marketing of same, as the "outside" fruits are being quoted considerably below prices fixed by the A.D.F.A. This hasty action is against the best interests of Growers, and, **unless some organisation is kept going, growers will find themselves the prey of the speculator.** If extended to Vine Fruits, such action will also lead to a cutting of prices in the Commonwealth, and injure growers in the long run.

There is no need for such competition in selling prices, and, if the objects of the legislation are to be obtained, viz., a fair all-round price from the home market to growers, it is essential that they should retain their own organisation.

Although the activities of the A.D.F.A. will do doubt be greatly lessened by the work of the State and Federal Boards, **it is still imperative that the industry should retain its organisation, and be in a position to take control if the State Boards cease to function at the end of their term.**

It is not anticipated that growers should be asked to pay levies other than are provided for in the Act, but, with A.D.F.A. funds available, it should be both possible and desirable to provide for the continuance of the Association for the next two years with a minimum expenditure.

It is the intention of the Board at some future date, when the position has begun to shape itself, to call a conference with a view to defining the Association's attitude, and meanwhile growers should resist the suggestion used by "outside" buyers that the Association has ceased to function.

AUSTRALIAN DRIED FRUITS' ASSOCIATION,
(Sgd.) H. D. Howie,
Chairman, Board of Management.

## ENGLISH CRICKETERS.

**"Sun-Raysed" Raisins Appreciated.**

Before the fourth test each member of the English cricket team was presented with a "souvenir box" of dried fruits, with the compliments of the Association.

It is now history how the English team won the fourth test by an innings and 29 runs, the first win for many years.

Maybe the Raisins had something to do with that run-away victory, and we are wondering if Tate got more than his share.

The Manager of the English team (Mr. E. F. Toone) has written in acknowledgment:—

"Many thanks for your kindness in sending boxes of dried fruit to each of our players and myself. The same is much appreciated. It is a kindness we shall not forget."

This appreciation prompted the following:—

Cricketers choose the choicest chews,
De-natured chews eschewing;
For cricket tests the toughest thews,
When victory is brewing.

Now, succulent Sultanas sweet,
Put pep in the red corpuscles.
Is it to Raisins we owe defeat,
In the fourth of the cricket tussles?

Anyhow and nevertheless, we offer our warmest congratulations.

## CARTONS FOR STONE FRUITS.

Some excellent designs for cartons for Sun-raysed Apricots, Peaches, etc., have been prepared. It is anticipated that a really distinctive carton will be evolved, which will materially assist in stimulating sales of these fruits.

Only the best qualities will be packed in cartons, and the packing will be in the hands of Messrs. Turner, Kempson and Co. Pty. Ltd., of Melbourne, who handled the Raisin cartoning so successfully last season.

Apricots especially are very popular, indeed they can even compete with fresh Apricots in the making of Apricot jam, which is a most extensively used article of diet.

This is not surprising, as their economy is well recognised by discerning housewives.

As the dried article is not picked till perfectly ripe, less sugar is needed, no stones are purchased, and no pitting is necessary.

The cartons will provide this commodity in a clean, hygienic, and easily handled form.

## RAISIN EATERS LIVE LONG.

The advantages and merits of Raisins have been long and widely heralded.

Their particular virtues have been known to mankind for thousands of years, yet it is not at all unlikely that there are still a few, fit subjects for jest or pity, who could not tell "what Raisins are good for."

A reminder has gone forth from eminent medical men in England that the length of man's life is being shortened in an amazing manner.

A centenarian is becoming more and more an object to marvel at, of whom photos appear in the pictorial papers.

The chief reason given for this shortening of life is the extraordinary wrongness of modern feeding methods and food generally.

In the days when Raisins were part of the every-meal diet, along with milk, honey, nuts and cakes of wholemeal, centenarians hale and frisky, were even more common than are 50-year old persons nowadays.

A few Raisins with every meal is advised as their aromatic juices stimulate the sense cells of nose and palate, and thus aid digestion.

When eaten after other food, they make all the difference between lethargic toleration and active absorption and utilisation of it by the body.

One lady at a recent "health talk" was heard to remark that she and her husband were determined to live to a hundred and ten, on Raisins and auto-suggestion!

There may be some doubt as to the best brand of the latter, though Couéism is good, but that Raisins eaten daily are conducive to health and longevity is simply the feeding experience of the ages.

## 3-CWT. OF DRIED FRUIT IN HALF-TON CAKE.

During the recent visit of the ex-representative of the A.D.F.A. (Mr. Alan Edmunds) to Albury, he had an opportunity of both seeing and tasting the mammoth cake prepared for the centenary celebrations of the discovery of the Murray by Hume and Hovell.

The following interesting particulars are supplied:—

Albury was en fete on the occasion of the centenary, and on the final night a confetti battle raged, after which great crowds visited Malcolm's Hall to witness the lighting of 100 candles on the great cake.

The chief point of interest to growers lies in the fact that 360 lbs. of Currants, Sultanas, and seeded Raisins were used in its manufacture. Other ingredients included 150 lbs. butter, 160 lbs. sugar, 80 lbs. Almonds, 1 gall. wine, 1,400 eggs, and 230 lbs. of flour, weighing over 1,000 lbs. when finished.

It was cut up and distributed amongst district identities, and about 3,000 school children from Albury district had a slice a-piece.

With the facilities for baking a Gargantuan cake like that, Albury has certainly altered since the days when Hume, Hovell, Boyd, Angel Bossawa and the three others made their damper and johnny cakes on the banks of the river, near where the big dam is now being built.




*An A D.F. Dioramic Display in London facing the Strand in Australia House*

## FILMS AND PHOTOS.

### London Publicity Efforts.

Growers will be interested to learn that some really solid publicity will be undertaken during the coming season throughout England.

The old saying, "catch them young," will be the basis of a campaign amongst the school children, and for this purpose special non-inflammable films have been prepared, together with photo slides for use in

schools, colleges and churches, etc. The three films which Mr. Caro will take back with him are of 2,000 feet each, and cover every phase of the industry.

## ONE MILLION POUNDS.

### How Much Will Our Dried Fruit-growers Get?

All interested parties were doubtless delighted to know that Sir Mark Sheldon and Mr. F. L. McDougall have been appointed as representatives of Australia on the Imperial Economic Committee, an early meeting of which is contemplated in London.

This Committee will have the spending of a portion of the million pounds that has been ear-marked for publicity.

Sir Mark Sheldon has also been a good friend to the growers, and we feel sure that he will do everything possible to forward their interests.

Mr. F. L. McDougall is well-known to many dried fruitgrowers in Australia, and growers can rest assured that their interests can be safely left in his hands.

## "COLD DIP" PROBLEMS.

### Pot. Carb. or Pearl Ash.

### Growers Must Obtain the Right Quality of Chemicals to Get Results.

In response to numerous enquiries from dried fruit growers with reference to the suitability or otherwise of the various potassium carbonates on the market, a representative of the "Fruit World" has investigated this matter, and reports as follows:—

Enquiries amongst some of the best houses in the trade show that growers are making purchases of pot. carb., apparently without realising that varying qualities of materials used will undoubtedly give varying results.

Naturally, growers are not aware that "commercial pot. carb.," (of which many tons have been supplied to growers) is known to the trade as "pearl ash."

"This **pearl ash,**" according to the manager of one of the biggest wholesale drug and chemical houses in the lane, "**is not pot. carb.!**"

The reason he gives is that **pearl ash is only up to 50 per cent. pure alkali, and 50 per cent. or over of impurities.**

When a grower orders "commercial pot. carb." the merchant sends "pearl ash," and is quite right in so doing.

The correct designation of the best pot. carb. on the market is—

**Howard's (B.P.) pot. carb. ($K_2CO_3$) which is the full 81.5 per cent. alkali as listed in the British Pharmacopœia.**

The fact that "commercial pot. carb." (pearl ash) can be bought for 30/- per cwt., while Howard's Brit. Pharm. pot. carb, costs 100/- to 112/- per cwt. (or 1/- per lb.), is an indication of the difference in quality.

Medium grades of pot. carb. can be bought for about 65/- cwt.

The question as to which is most suitable can be decided only by experiment, which may be a costly method, or by reference to a scientist.

The fact that it is the alkalinity of the solution which enables the emulsification with the oil to take place, it may be only right to assume that the better quality, or purer pot. carb. with the highest percentage of alkali, would produce the best emulsion, and consequently better results in the finished fruit.

To settle the point, we have communicated with Scientist A. V. Lyon, and will publish, in our next issue, his ruling as to strengths of alkali required, if they make any material difference to the solution, and answer the query as to whether "pearl ash" (commercial pot. carb.) or the 81.5 per cent. B.P. pot. carb. is the correct and best for making the cold dip solution.

## BATTLERS AND SIDELINES.

Being broke's one thing but a man's not really broke till he drops his bundle as well, as Doc. Crane might say in putting over the Tonic stuff.

Now a battler is a man who, though broke to the wide world, nuts out a scheme for a "side-line" that will keep the wolf off the door-mat—that's if he's got a mat, which he probably hasn't.

I know a battler who's a real tonic. He told me he was so broke that if turkeys were 3d. a pound, he couldn't buy a tom-tit's eyelid!

His sideline was certainly a snifter, so I pass it on.

At the back of his block, on the "high land" he had a number of small pine trees. He cut the limbs back and grafted Apple twigs on to them.

Result: Pineapples—with a distinctive flavor and no "rough end"!

They're selling well locally, he reckons because they're just the sort of improved Pineapple that you can give the kids to eat with no fear of them getting pimples on their tongues.

The success of this "grafter" encouraged another of the "battler" type to try the grafting stunt.

Living on the edge of the mallee, and being very broke, he got some Gordo buds and budded them over on to whipstick mallee, and awaited results.

That was a year or two ago, and I went to see him last week, and he met me with a breath like a football training-room, on a Wednesday night—you know that reek of stale eucalyptus?

I asked him what on earth he'd been drinking, and he drew me mysteriously in-doors.

"Taste this," he urged, "and if you don't say it's just what the doctor would order for any sort of a cold, from a snuffly nose to the "consum," then I'll walk into the Murray till my hat floats!"

And it tasted fine, too, a sort of medicinal wine with a real gum tip bouquet, as the connoisseurs might say.

I asked him how he managed it, and he said—with the pride of a battler—"I made it from the Grapes I grafted on the mallee, and I've named it "Eucalyptwine"!

Now there's a genius for you—and if a world cursed with chronic catarrh doesn't beat a track to his door, it will be only because his humpy is such a dashed long walk from the railway station!

### Approaching Displays.

All-Australian Exhibition, Adelaide.—Eight weeks from March 27th.

Sydney Royal Agricultural Show.—One week, Easter.

At which the Sunraysed Brand will be represented in a comprehensive display.

## SEASONABLE CULTURAL ADVICE.

### When to Pick: The "Cold Dip" Explained.

(By Our Special Correspondent.)

### Heavy Rain Causes Damage.

THE HEAVY RAINS that fell during the first week of February did much damage to the Currant crops in the S.A. irrigation areas. The unseasonable weather caused many of the berries to split, and where the bunches were thick and the foliage dense, mould developed in the fruit to a certain degree. Much fruit fell from the bunches, and was lost.

The rain appeared patchy, falls from 75 to over 330 points being recorded. Cadell, one of the young areas on which returned men are settled, received the heaviest fall; this is particularly hard on these men, as this is only their second crop. Great damage is reported to the Currant crops from that centre.

The Sultana crops have suffered to a lesser degree, many of the berries having split around the stem end. So far, no reports have been received of serious damage to this crop.

It is unfortunate that the rain should come at such an inopportune time, as growers are now alert to the necessity of placing the best product they can produce on the London market. The effects of the rain will reduce the grade to a certain extent.

The **harvesting of Currants** is in full swing at the present time, and Sultanas are rapidly ripening.

The **Sultana** should never be picked until the full development of sugar has been reached. The Beaume reading of the must should be at least 12.5 to 13 degrees.

To assist in getting a uniform sample, growers are advised where it is practicable to pick the amber coloured berries into one bucket and the green into another.

**The green and amber fruit should be dipped separately and dried separately,** as they produce a different coloured dried product. If this method of harvesting were universally followed, it would go a long way towards solving the "pie-bald" appearance of many of our Sultana packs.

**"Cold Dip" Process Explained.**

As the season draws near for the processing of the Sultana for drying, the interest in the cold dip method increases. Recently demonstrations of the process were given in the Berri Area by a Greek gentleman, who has spent the greater part of his life in Smyrna amongst the Sultana vineyards. He does not favour a dip made wholly from carbonate of potash and oil, but likes a liquid solution of partly ash lye.

The ash lye is made by passing water through freshly burnt ashes,—the ashes must be fresh, those that have been wet are of little value as the soluble salts have already been leached out of them.

A strainer is made by knocking the bottom out of a small box, covering the opening with a bag or double hessian. The ashes are now placed in the box, hollowed out in the centre, and the hole filled with water, the object being to make the whole of the water pass directly through the ashes. The water is caught as it filters through.

This if tested will be found to be about 1.5 Beaume. The liquid is again passed through the ashes, (fresh ashes being added if necessary), until the collected solution will give a reading of about 4 Beaume.

When dipping is to be started the liquid is brought up to 6 to 7.5 degrees Beaume by the addition of Carbonate of Potash. Olive oil at the rate of 1 pint to 25 gallons of solution is added. The dipping emulsion should be 6 degrees in hot weather and 7.5 in cool and cloudy weather.

Should drying be prolonged through rain or dew the fruit must be sprayed, or as the demonstrator explained, sprinkled. He stated a small bunch of stiff grass or plant with fine leaves, was all that was needed, this was simply dipped into the dipping mixture and lightly shaken over the fruit.

He claims that no sign of white deposits of the potassium salt would be found on the Grapes when ash lye was used, and that the ash lye would produce a finished product with a much finer skin than the purely Carbonate of Potash dip. Drying should be completed within 8 to 10 days.

The amber coloured fruit, it was stated, would give a better coloured dried article than the green fruit. In Smyrna they aimed at producing amber coloured fruit by

**pruning or topping**

the vines heavily while the berries were quite small, say about ¼ inch in diameter.

By consistent topping year after year the resulting growth is more or less upright in character, thus exposing the bunches of fruit to the direct rays of the sun, thus gaining the amber coloured fruit.

Experience shows that under our local methods of cultivation and climatic conditions, heavy topping of vines, unless they are particularly vigorous, tends to weaken the plants and to reduce yields.

In further explanation of the success of the process it was pointed out that drying the fruit on white paper helped to produce a more even and a brighter colour than where the fruit was dried direct on wooden trays.

QUALITY
DEHYDRATORS
J. H. MORTON, A.M.I.M.E.
Consulting Industrial Engineer
Bank of N.S.W. SYDNEY, and
369 POST OFFICE PLACE, MELBOURNE
Inventor-Designer
WORLD RENOWNED
"Morton Efficiency" Dehydrator
(By Royal Letters Patent)
(Adopted after elaborate Official Tests by H.M. Imperial Govt.)
Consultations and Reports on EVERY DESCRIPTION of DRYING APPLIANCE.
*Write NOW!*

The use of wire racks was not favoured.

The white paper evidently radiated the heat more or less throughout the bunches of fruit, thus tending to equalise the drying process.

The "Cold Dip" has so taken hold of the growers that committees have been formed in most of the centres to try out various strengths of dip.

Data is to be collected and conclusions drawn therefrom as to the advisability of universally adopting the process.

**The Hot Caustic Dip.**

Many growers produce beautiful fruit by the hot caustic soda dip, the main factor in the producing of such results is care.

Strength of dip is one of the principal factors, equal sample of fruit, (i.e., keep the amber fruit separate from the green), and temperature of the dipping liquid.

In the first instance one must get away from the erroneous idea that fruit must be well cracked to produce a good dried article. Certainly the fruit dries quicker when it is well cracked, but against this the loss of sugar must be placed, also the effect upon the packed fruit, the sugaring of the berries in the boxes.

As previously stated the amber coloured fresh fruit produces a different coloured dried article than that produced by the green berries.

The temperature of the dip should run between 190 to 200 degrees Fahr. **whichever process is followed care and cleanliness are the essential points to be considered.**

## SETTLERS' TROUBLES.

### South Australian Water Commission Has Shut Down on Fruit Propositions.

### Can Lessees Pay Their Way?

The following significant statements appear in the first Annual Report of the South Australian Irrigation Commission for the year ending June, 1924:—

"Owing to the depression in the dried fruits industry there has been very little demand for holdings in irrigation areas, and only a small proportion of the blocks offered were applied for. . . .

"In view of the unsatisfactory condition of the fruit market, and the consequent small demand for orchard land, as well as the necessity for investigating the general financial position of the existing areas, it was decided, soon after the Commission assumed control in July, 1923, to close down on all construction works affecting the opening up of new areas."

The Irrigation Commission asks for a report as to "whether the financial liabilities of the Government of the State under the Irrigation and Reclaimed Lands Act 1914 and the Discharged Soldiers' Settlement Act 1917 of the lessees of irrigation blocks are such as will prevent the lessees from working their blocks with a reasonable likelihood of success."

**Fruit Export.**—We have to advise Victorian growers who are exporting fruit overseas that the Victorian Agency for Messrs. T. J. Poupart Ltd. has been altered to Mr. F. N. Pringle, G.P.O. Box 2042, or 567 Flinders-street, Melbourne, and not Mr. E. W. T. Adams, as appears in their advertisement on page ix.




# Interstate Citrus Conference.

## Many Important Matters Discussed : Local, Interstate and Export Trade.

A CONFERENCE of Victorian and Interstate citrus growers convened by the Victorian Central Citrus Association was held at Melbourne on February 11 and 12. Mr. Stanley Brentnall (Bamawm) was elected to the chair. There were also present Messrs. J. P. Larkings (Wangaratta), F. J. Churches and J. M. Jacobs (Kyabram), W. McGregor and W. Stewart (Shepparton), Rupert Watson (Perricoota, N.S.W.), A. J. Wood (Tongala), F. M. Quick and P. Rossiter (Cobram), A. N. Schwennesen and N. Cox (Riverside), D. A. Murton (Tresco), L. W. Weymouth (Echuca), W. Cain (Madowla), Gerald Mussen (Tresco), K. A. Goodland (Mildura), J. R. Gorton (Tresco), Major H. R. Hallard (Gen. Mgr. N.S.W. Central Citrus Assocn.), and J. A. Parkes (Sec. Murray Citrus Growers' Co-op. Assn., S.A.).

The following also attended at various stages of the conference:—Dr. S. S. Cameron (Director of Agriculture), Messrs. W. Thomas (Asst. Gen. Supt. of Transportation, Vic. Rlys:), J. M. Ward (Supt. of Hortic.), S. A. Cock (Vic. Govt. Citriculturist), Stirling Taylor (Dr. Commercial and Indus. Bureau, Board of Trade), W. Branson (Market Rep. V.C.C.A.), and B. S. B. Cook (Sec. V.C.C.A.).

### Official Opening.

In opening the conference the Federal Minister for Migration and Markets, Senator Wilson, said that all the fruit grown in Australia could be marketed overseas. The Federal Government was not a trader and was not likely to be one. The efficiency of the organisation belonged to the growers and not to the Government. The conference decisions would have careful attention, and the Government would not be slow wherever possible to come to the growers' assistance. There was a misunderstanding in some quarters that the Government wanted to bring in compulsion. Nothing of the sort was contemplated. The Government had come into the ring to help the industry, not to take charge of it.

In response to an interjection Senator Wilson said he was not prepared to commit himself on the matter of levy as applied to the Meat Council. As regards the Marston process for dipping citrus fruit, a report was being prepared by Sir George Knibbs of the Institute of Science and Industry. Last year 50,000 cases of Australian fruit were sold in the Wembley Exhibition; the average market



Mr. S. Brentnall.

price for Apples for the season was 14/10d per case. With this price in London and freight at 4/6d growers should be able to make a living or go out of the business. The price of 4/- per bushel at the foot of the tree should be payable.

In proposing a vote of thanks, Mr. Gerald Mussen stated that it was better that the fruit trade should be organised on sectional lines rather than that all fruitgrowers should be associated in one body. In three years the Citrus Association achieved a great deal and had linked with growers in South Australia and New South Wales.

The motion was seconded by Mr. Churches and carried with acclamation.

### Resignation of Mr. Mussen.

The chairman reported that Mr. Mussen's resignation as a director of the V.C.C.A. Pty., Ltd. had been accepted with deep regret. Mr. Mussen was shortly going to England. In his place the Board had appointed Mr. J. R. Gorton of Tresco. A resolution of appreciation to Mr. Mussen was carried with acclamation.

### Secretary's Report.

In his annual report the Secretary (Mr. B. S. B. Cook) emphasised the successful result of the year's operations. The good prices obtained in 1923 had been improved on in 1924, particularly for the finer qualities of Oranges and Lemons.

The Association, he said, was now regarded by both Federal and State Governments as the most efficient organisation at present handling fresh fruits. A total of 120,700 cases has been handled by Association agents during the past year. Considerable sales had taken place in country centres, in addition to the quantities handled by their agents.

The exports to Great Britain were 4,059 cases, showing a slight decrease on 1923 crop figures, which totalled 4,188.

Reports from New Zealand showed that there were excellent opportunities there. It was estimated that a market existed for 10,000 cases of Navel Oranges per season in New Zealand, and the agents spoke in terms of praise of the quality of the fruit, and get-up of the pack.

The further efforts made to establish a trade with the East were not very successful, as the prices received were unsatisfactory. The Association's agents did not consider the prospects promising enough to warrant further development.

Trial shipments to Canada were being considered by the Directors, as the value of the Orange importations to Canada during 1924 amounted to

£5,871,752, and it was considered that an attempt should be made to secure a portion of this trade.

The report further dealt with other matters, such as the Marston process for preserving citrus fruits. Fumigation regulations and experiments; importation of foreign citrus fruits, etc., and concluded with a reference to the future prospects of the industry and the policy of the Association.

### Address by Railway's Officer.

Mr. W. Thomas, Assistant Superintendent of Transportation, apologised for the unavoidable absence of Mr. Canny, the Transport Superintendent, and stated that the Railway Commissioners were in sympathy with the ideals of the fruit industry, and were helping in every way possible. He submitted figures showing the large increase of the case lot trade since the advertising campaign had been carried out by the Association in conjunction with the Railway Department. For the year ending January, 1925, there had been consigned from Victorian stations to Melbourne 287,772 cases of Oranges, and 45,079 cases of Lemons. The traffic was heavy from June to November inclusive. The Goods Superintendent had given instances of cases being broken, and recommending that wire strapping be used for cases containing citrus and other fruit.

Several matters were referred to Mr. Thomas, and attention was promised.

### Meetings of Directors.

In reply to Mr. Larkings, who suggested more frequent meetings of Directors, the Secretary said that the Articles of the Association made it possible for Directors to adopt resolutions after consultation by correspondence. More meetings might be necessary now that they were losing Mr. Mussen. It was necessary to keep down expenditure.

### Crop Estimates.

Reports indicated that heavy crops were in sight, and preliminary estimates re the coming crop of Oranges were submitted as follows:—

| | Cases. |
|---|---|
| Tresco | 20,000 |
| Kyabram | 5,000 |
| Curlwaa | 10,000 |
| Echuca | 2,500 |
| Shepparton | 17,500 |
| Riverside | 15,000 |
| Mildura, Merbein, Irymple | 70,000 |
| Cobram | 19,000 |
| Wangaratta | 25,000 |
| Perricoota | 15,000 |
| Tongala | 3,000 |
| Bamawm | 15,000 |
| Madowla | 5,000 |

Regarding the Victorian acreage, it was estimated that the area under citrus was 8,000 acres, although the official figures showed less. Speaking in round figures, it was estimated that the crop of Oranges in Victoria might run to 250,000 cases.

With regard to South Australia, Mr. Parkes stated that it was difficult to get the grower to increase in export, and if the crop were light in South Australia, he did not think the growers would export their Oranges. He gave an approximate quantity of 50,000 cases, about the same as last year.

### Marston Process.

The Secretary stated that careful tests had been made under close supervision, and the process apparently had possibilities. The Association had an option the renewal of which would cost £250, and they would need another £250 to carry on the tests. It was proposed to ask the Federal Government to provide the necessary money.

### Address by Director of Agriculture.

Dr. Cameron apologised for the unavoidable absence of Col. Bourchier Minister for Agriculture, and congratulated the V.C.C.A. on its success. Dr. Cameron spoke in terms of high appreciation of the California Fruitgrowers' Exchange (Citrus). In giving details of the operations of the Exchange, Dr. Cameron said that one of the great factors in its success was the happy relationship between the Eastern (U.S.A.) bodies and the Exchange. There was all round the utmost sympathy and helpfulness. It would be well worth while for the conference to send a suitable man to California to study the position there with a view to adopting some of their methods. The expenditure of a couple of thousand pounds would be returned a hundredfold. There was much that the growers did not know about their own industry. [Further reference to Dr. Cameron's address will be published subsequently.]

Dr. Cameron was accorded a very cordial vote of thanks.

### Export Matters.

Complaint was made of the high rates of freight to New Zealand. There was a difference in freight of only 1/6 as compared with the rate to England. The Secretary stated that in New Zealand they had to pay 7½ per cent. to 10 per cent. selling commission, while in Great Britain they paid only 3 per cent.

Mr. Stewart contended that the Australian bushel case, and not the California case of 1 1-3rd bushel, should be used, both for export to England and N.Z.

Mr. Parkes strongly urged the continuing of the use of the 1 1-3rd bushel case.

### Equalisation Fund.

A lengthy discussion regarding the proposal to levy growers to establish an equalisation fund, out of which sufficient could be taken to pay growers who exported at a price equal to Melbourne parity. Most speakers opposed the additional levy, affirming that the Government should assist the export trade. Mr. Hallard said he did not think the Government would give a bounty; the only way was compulsory control (not Government control). Mr. Parkes opposed the bounty. It was subsequently decided, at the instance of Mr. Mussen, to ask the Government to guarantee to members a price equivalent to the average return in their State capital during the month of shipment. Failing this, the Executive was empowered to take further steps calculated to benefit the industry.

### Export to New Zealand.

Mr. Hallard stated that N.S.W. preferred the bushel case to the Californian case for export to New Zealand. Sales on the f.o.b. basis were satisfactory. N.S.W. supplied the North Island only. Could the Australian Associations organise to supply the whole of the Dominions needs in citrus?

Mr. Branson disapproved of f.o.b. sales. Agents in N.Z. were prepared to handle Association fruit only. (Referred to Federal Citrus Council.)

### Export Control Board.

Mr. Cook stated that the proposed Export Control Bill, which had been drafted by a sub-committee of the Australian Advisory Fruit Council would be ineffective so far as citrus growers were concerned. The trouble was not so much in regulating the export as getting the fruit to export.

On the motion of Messrs. Jacobs and McGregor, it was decided **that citrus fruits be removed from the scope of the Bill, as our circumstances are entirely different from those of other branches of the fresh fruit industry.**

### Market Representatives' Report.

In his annual report, Mr. W. E. Branson stated that the past season he considered the most successful, because of the masterful handling of the fruit by the appointed agents, especially in cool storing when surpluses were threatened. The quality of the pack was excellent, but the quality of the fruit was below average, owing to seasonable difficulties.

A little dissatisfaction was caused at times, through the allocation of fruit between the different sellers, but until a better system was devised, uneven supplies would continue.

A better method for direct supply to retailers must be found, as buyers informed agents that they could purchase supplies at 6/- per case less than the ruling market rate.

In view of the large crop in sight, he recommended

(1) A case lot campaign in country districts to sell large sized fruit: a salesman to book orders at an agreed price, and an agent be appointed in each district to receive in bulk, collect the cash, and be responsible for payment to Association.

(2) An equalisation fund by striking a levy, which could be drawn upon to make up the local full market value of fruit exported.

(3) To more fully exploit the New Zealand market.

(4) That all fruit sold direct to retailers be supplied from Association sheds and not by individual growers. Contracts for sale to include that the price shall be the ruling market rate at the time of despatch.

(5) That an additional agent, whose sole business was in the Victoria Market, and that he be sent a constant supply from various sheds.

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### Sale in Case Lots.

A suggestion that the matter of selling in case lots be left to the districts doing the business evoked much discussion, there being conflicting views. A sub-committee was appointed, and its recommendation that the matter be left to each district was carried.

### Appointment of Agents.

Mr. Schwennesen moved that the district is dissatisfied with (naming a certain agent) and that another agent be substituted in his place. When the market price for Oranges was 18/-, the agent concerned returned from 8/- to 10/-. They lost £25 on the consignment. Mr. Rossiter seconded.

After discussion, in which it was pointed out that growers need not send to the agent mentioned, the motion was withdrawn.

Mr. Larkings (Wangaratta) said that a grower in his district who had been sending to outside agents was prevailed upon to send to the V.C.C.A. agents. The prices received from the latter, however, were 5/- per case less for the same quality of Oranges. Consignments of identical fruit were then split between V.C.C.A and outside agents, and the latter beat the former by 5/- to 6/- per case. If outside agents could obtain 12/- a case, there was something wrong with the V.C.C.A. agents, who could only return 6/- per case. No sensible man would put on 6/- a case for the purpose of harming an agent of the V.C.C.A. Mr. Larkings stated he was a V.C.C.A. man first and last, and organised the districts, and wanted all growers to join. He urged all growers to join the Association, and he had a duty to attend to mention the leakage. He did not want dissatisfied growers to break away from the Association.

Mr. Branson insisted that V.C.C.A. agents were in the position to secure top market prices. No buyer would pay an outside agent 12/- a case when he could buy the same fruit from a V.C.C.A. agent for less. He would not say outside agents put their hands in their pockets to return a high figure to make a good impression. He left it to the Conference to think over.

Mr. Wood stated that there were several growers in his district whom he thought would join the Association if Messrs. T. Stott & Sons could be included in the list of agents.

Mr. Parkes (S.A.) stated that in consequence of reports of varying prices and unfavorable comparisons, growers along the Murray Valley were growing dissatisfied and finally appointed Mr. Katekar and himself to visit Melbourne. Mr. Katekar was a grower of over thirty years' experience, and a director of various enterprises, and after investigating the Melbourne conditions, a report had been prepared advocating that the present agents be not altered. The variation in quality of the fruit was so great that unless the growers could be on the market and see precisely what was done with the fruit—if necessary, splitting consignments—noting its quality and condition as it arrived on the market, it was ridiculous to compare one result with another.

Mr. Hallard stated that where they previously had fifteen agents, now they had reduced the number to six, which had proved ample, and the appointed agents did better work.

Mr. Cook stated that the V.C.C.A. started with thirteen agents, and now they had five. Mysterious things happened on the Melbourne market. The agents appointed were out to do their best for the growers, and should the Association withdraw its patronage, it would involve a loss of some thousands of pounds to the agents concerned. It was an incentive to the agents to be alert to secure the best prices possible. Sometimes an outside agent fluked a good sale, but on the average the V.C.C.A. men were serving the growers well.

Mr. Larkings expressed gratitude for the discussion, especially Mr. Parkes' explanation.

Mr. Branson urged that an additional agent be appointed—one for the Victoria Market. This was opposed by Mr. Jacobs.

It was decided, on the motion of Messrs. Schwennesen and Parkes, that the number of agents on the Melbourne market be not increased beyond the number appointed for last season, but that the final decision be left in the hands of the Directors.

Mr. Goodland stated that he believed outside growers could be brought into the fold if they were given an opportunity to have the fruit sent to the V.C.C.A. for disposal, and not necessarily to one particular agent. It was resolved—"that such arrangements be made that citrus fruits may be consigned, if desired, direct to the V.C.C.A for disposal in the best interests of growers, provided that freight be pre-paid."

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### Levy for the Coming Season.

Mr. Schwennesen moved that it be left in the hands of the Executive to make a levy of up to 3d. a case on Oranges, and 2d. a case on Lemons as may be deemed necessary.

In the discussion which followed, it was pointed out that the Association lost a large amount of revenue, because of the disinclination of some growers to pay their levy on private sales.

On the motion of Messrs. Quick and Wood, it was decided that the levy on Oranges be the same as last year (2d. per case Oranges, 1d. on Lemons).

Mr. Goodland put forward a suggestion for future consideration, viz., "that the total levy on fruit sold by the accredited agents should be 2½ per cent. of the selling price of the fruit, the same to be equally divided between the V.C.C.A. and the district of origin."

Mr. Goodland stated that this would reduce the levy of 2d. per case on the lower-priced fruit, would increase the revenue of the Association, and

would allow agents to sell at 10 per cent. commission.

**Market Representative.**

On the motion of Messrs. Schwennesen and Jacobs, Mr. W. E. Branson was unanimously reappointed as market representative.

**Levies on Privately Sold Fruit.**

A resolution requesting that the levies on privately sold fruit be reduced by half on privately sold fruit was defeated, and district secretaries were instructed to use endeavours to collect these levies in full.

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**Wembley Exhibition.**

The Secretary stated that thirty cases only would be required for the Wembley Exhibition. The fruit for ordinary sale could be purchased in London. The sale of fruit at the Exhibition should be conducted on behalf of the growers instead of by a speculator, as was the case last year when it was reported that one individual had made a profit of £70,000.

It was decided "to provide the 30 cases, and that in view of the large profits made by speculators, to request the Minister for Markets to arrange for the sale of citrus fruits on a commission basis."

**Lemons for Factories.**

A sub-committee was appointed to draw up a report. Subsequently the following report was submitted and adopted:—

(1) That steps be taken immediately to ascertain from those districts which have not already sent in crop estimates, what the Lemon crop for the coming season is likely to be. (2) That districts be asked what price they are prepared to sell their Lemon crop at for factory purposes, the quotation to be on country railway station, manufacturer to supply bags and cash 30 days. (3) That the Directors negotiate with the factory Lemon buyers and endeavour to make firm contracts for the sale of V.C.C.A Lemons at the price quoted above.

**Duty on Softwood Timber.**

In reply to a question the Secretary stated that in conjunction with South Australian delegates, evidence had been given protesting against the proposed increase of 6d. a case.

**Sale of Case Lots in United Kingdom.**

It was decided that the Directors be empowered to arrange for the sale of pre-paid case lots to be delivered to any address in the United Kingdom at a fixed price of 35/- (1 1-3rd bushel case).

**Tour of Districts.**

It was decided that an Association representative be authorised to visit the citrus districts.

Mr. Churches moved—"That this Conference request the Directors to call a Conference with the V.C.C.A. agents and endeavour to persuade them to tour the districts in the same way as outside agents." The business was there to foster, he said, but the agents were sitting back and allowing the Association to do their work for them. (Carried.)

**Fumigation.**

It was resolved, on the motion of Messrs. Wood and Quick, that the number of tents provided for in the Government scheme for fumigation, namely, 18, is not sufficient, and that the number be increased to thirty for each district.

Mr. McGregor moved that payments for fumigation be spread over a period of two years, equal instalments to be paid each half-year, the first payment to be made on completion of fumigation to the satisfaction of the grower. Mr. Wood seconded.

After explanation by Messrs. Ward (Superintendent of Horticulture) and Cook (Citriculturist) the motion was withdrawn. The costs for fumigation were stated to vary from 3/- to 1/3 per tree.

**Company Law Amendment.**

Mr. Hallard said that there had been a doubt in N.S.W. as to whether, under existing legislation, contracts could be enforced in respect of selling through the packing houses. A large number of growers had practically withdrawn at one stage from the packing houses, and the question had arisen as to whether it would be wise to take a case to court. However, a new Act had been passed making such contracts binding. It was advisable for all the States to secure legislation to make contracts enforceable. Referred to Federal Council.

**Country Organiser.**

It was decided that the appointment of a country organiser be left to the Directors.

**Requests to Railway Commissioners.**

On the motion of Messrs. Murton and McGregor, it was decided "that the Conference requests the Railways Department to give consideration to the following matters:—

1. "Reduction of freight on wired cases.

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2. "The purchase by the Department of only the highest class of Oranges, and that these be procured only from the V.C.C.A. growers.

3. "That the principle of reduced freight on returned empty cases be applied also to shooks sent into the country, which are returned full. Growers belonging to the V.C.C.A use only new cases, and make little or no use of second-hand cases. Further that the practice of sending shooks into the country means a considerable saving in the use of trucks as compared with forwarding made-up empties."

**Citrus Supervisors.**

It was decided "that Conference regrets that the Government has not seen fit to provide more adequate salaries for the position of area supervisors."

One delegate opposed the motion, on the ground that it was asking the authorities to increase the salaries of officials who were not efficient.

**Pamphlet re Country Trade.**

The Conference decided to approve of the V.C.C.A. co-operating with the Railway Department in the issue of a citrus pamphlet, and that packing sheds be invited to state whether they are prepared to come into the scheme on a basis of fixed prices for case lots for stipulated periods.

**Scientific Investigations Needed.**

On the motion of Messrs. Goodland and Churches, it was decided "that in view of the necessity for developing the export trade in citrus fruit, Conference recommends the appointment by the Federal Government of a trained scientist to study the problems surrounding the transport of citrus to overseas markets."

**Agents in Country Towns.**

On the motion of Messrs. Murton and Quick, it was decided that the Directors be requested to take into consideration the appointment of agents in Ballarat and Geelong.

**Wiring of Export Cases.**

The Chairman initiated a discussion regarding export cases, and suggested that it be a recommendation to districts to wire all export cases. The opinion was expressed by delegates that where practicable all cases for export should be wired.

## DEPUTATION TO MINISTER.

### Export Guarantee Refused.

### Appointment of Scientist is Favored.

FOLLOWING the Citrus Growers' Conference, a meeting of the Federal Citrus Council was held, and resolutions were drawn up to submit to the Minister for Migration and Markets (Senator Wilson).

The Secretary (Mr. Cook) requested that fruit at Wembley be sold on a commission basis. It was reported that a contractor made £70,000 out of fruit at the Exhibition. This request the Minister refused as impracticable. The contractor did not even take £70,000, much less make it. If he made £5,000 or £6,000 that was the limit.

Mr. S. Brentnall requested the Government to guarantee to members of the Citrus Growers' Association who export fruit, an equivalent to the average net return in their State during the month of shipment. Unless exports were adequately cared for many growers would be ruined.

The Minister replied that growers' difficulties would have to be overcome by scientific methods of marketing. There was no hope of the Government subsidising oversea marketing to create a higher demand in Australia. The Government could assist growers with their organisation. He would consider the whole matter of marketing.

A request was made for the appointment of a trained scientist to study problems surrounding citrus export.

This, stated the Minister, was one of the most important matters of all, and the Government would consider the matter immediately, with a view of doing something of a practical nature.

## PRESENTATION TO MR. MUSSEN.

Mr. Gerald Mussen was the guest of the Victorian Central Citrus Association at a complimentary dinner tendered to him on the eve of his departure for England.

The services of Mr. Mussen to the Citrus industry were referred to in terms of high appreciation by a large number of speakers including the representatives of the Victorian, South Australian, and New South Wales Associations.

With well-chosen words the various speakers eulogised Mr. Mussen for his vigorous personality, inspiring leadership, and wise counsel, factors which had materially assisted to place the citrus associations on their present basis.



MR. G. MUSSEN

The chairman Mr. Stanley Brentnall, presented Mr. Mussen with a gold watch, suitably inscribed, and a leather travelling case. Mr. Cook, on behalf of the staff of the association, handed Mr. Mussen a gold watch chain.

In responding, Mr. Mussen said that growers generally had shown splendid loyalty to the association, but there had been some growers who had not co-operated as they should have done. The days of voluntary co-operation were almost past. The time was coming when compulsory co-operation would be provided for by legislation. Care would be taken, however, that there was no tyranny regarding the individual, except so far as it was necessary to do certain things, not only in the individual's interest, but in the interests of all his fellows.

## CROP PROSPECTS.

### SOUTH AUSTRALIA.

**Medium Crops Expected.**

Mr. E. Naughton, General Secretary of the South Australian Fruitgrowers and Market Gardeners' Association, reports on 18/2/25 as follows:

From reports to hand, the prospects are for a medium crop—about equal to last year.

**Waikerie.**—The showing early in the season gave promise of a record crop, but owing to a heavy dropping we now have a showing about equal to last year, namely (about) 26,000 cases Navels, writes Mr. T. C. Heming of Waikerie. Mandarins are showing a better prospect and we expect to harvest upwards of 5,000 cases.

The recent rains which have played havoc with the Grape crop, will undoubtedly improve the Citrus outlook, but it is anticipated that there will be a large proportion of big fruit.

### VICTORIA.

**Kyabram.**

Mr. F. J. Churches reports under date, 17/2/25:—

Re citrus crops. The prospect is for a heavier crop than last season of Navels, Valencias and Lemons, these being the varieties chiefly grown.

Citrus fruits in this district give very satisfactory returns to growers who attend to their groves in a business-like way. Salt and seepage troubles are unknown in the Kyabram district. This is a long tried-out centre for fruitgrowing. Many growers from Mildura have settled here, and like the change.

### NEW SOUTH WALES.

**The Coming Citrus Crop.**

**N.S.W. Anticipates Heavy Yields.**

**Good Quality, Too.**

Regarding the coming citrus crop, Major H. R. Hallard, Manager of the N.S.W. Central Citrus Association, reports as follows, under date February 18th:—

Prospects generally in the citrus districts of N.S.W. indicate a **heavy crop, probably double the quantity of last season's crop.** The season has been a good growing and setting one, and unless any untoward circumstances, such as heavy frosts or heavy hail, there is not much likelihood of any further appreciable falling off of the young fruit.

**Irrigation Areas.**—Griffith and Leeton—Reports indicate a very heavy setting of both Navels and Valencias. There are a large number of young orchards planted out in this Area, which are just coming into bearing,

and this will, of course, increase the quantity produced over last year by quite a considerable amount. In addition, the older trees appear at present to be carrying a much heavier crop than last year.

**Gosford.**—On the lowlands, there will be a particularly heavy crop of Valencias, at least double that of last year, but Joppas and Commons will be lighter. On the highlands of Gosford, Mangrove Mountain, etc., there will be a very heavy crop of Valencias, and generally a heavier crop of Mandarins than last year.

**Hills District.**—This area, comprising of Dural, Arcadia, Galston and Kenthurst, etc., also seems to indicate a heavy crop of Mandarins and Valencias. Commons also are perhaps slightly heavier than last year.

**Kurrajong — Windsor District.**—Every indication points to a crop about double that of last year from this area.

**Hawkesbury River.** — Here also similar remarks as to Kurrajong apply to this area.

While, therefore, the N.S.W. crop will be very much bigger, on the other hand there is every indication that the fruit generally will be better in quality, and that sizes will be smaller than during the past season.

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**Ridley, Houlding & CO.,**
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**FINEST TABLE APPLES A SPECIALTY**
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Consignment of Apples Solicited
Best market values and most favorable conditions
Cash advances made if desired

### Gosford.

On behalf of the Gosford District Citrus Packing House Ltd., Mr. J. R. Chapman writes,—19/2/25.

Our forecast citrus crop estimates have not yet been returned to the Packing House. Personally, we think the crop will be heavy.

We take this opportunity of strongly supporting the "Fruit World's" attitude with reference to the Fresh Fruit Export Control Act.

## CITRUS CROPS IN U.S.A.

### Exceptionally Heavy Yields.

According to information published in the "Rivista Commerciale de New-York," the United States expected an exceptional harvest of citrus fruits in the 1924-5 season. It is evaluated according to the most moderate official previsions, to 69,000 cars for California alone, of which 55,500 cars of Oranges, 12,500 of Lemons, and 1,900 of other varieties, such as Mandarins, etc., etc.

If a carload is calculated as containing 462 cases of Oranges and 400 of Lemons, California will this year dispose of

**25,461,000 cases of Oranges**

and 5,000,000 cases of Lemons, figures corresponding to the mean annual local consumption of the United States. Last year, the total harvest of the United States had been of about 60,000 cars, of which 9,000 only of Lemons, which represented 3,600,000 cases, a figure still leaving a margin of about 1,500,000 cases for importation. The importation reached 1,540,150 cases. Prospects for imported fruits are far from favourable during the 1925 season.

In certain districts, the harvest of this year is reckoned as being 25 per cent. or 30 per cent. higher than that of last year.—"Journal of Institut du Froid."

## Price of Lemons.

### Australia and California Compared.

### Interesting Report from Mr. J. S. Vagg, of Griffith, N.S.W.

THE price for Lemons has been discussed in recent issues of the "Fruit World," and a correspondent in the last issue (p. 73) asked certain questions in regard to Californian methods, curing, marketing, advertising, etc.

A reply has been courteously furnished by Mr. J. S. Vagg, of Griffith, N.S.W., the able representative of the Griffith Producers' Co-operative Association, who recently visited America.

Mr. Vagg writes:—

It would certainly be a "tall order," and would fill the "Fruit World" several times over to answer the questions asked by your correspondent in full. I presume, therefore, that you only require brief answers, and will endeavour to supply these. At the same time, it is impossible to convey to your readers any idea of the vast amount of detail connected with the handling of fruit on Californian lines without running into many pages.

I will deal with your questions in the order in which they are asked, and the replies apply principally to citrus, that being the only crop handled during the time I was in California.

**R. JOEL & SONS**
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Covent Garden Market
**LONDON, W.C.2**
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1. Picking is, in the majority of cases, carried out by picking gangs under the control of the Packing Associations, which are co-operative concerns organised and equipped for the packing, grading and despatching of fruit. Curing and storing applies only to the Lemon crop, and the methods used vary according to the market demand at the time.

Packing and grading, although carried out by local associations, are under the supervision of officers of the Californian Fruitgrowers' Exchange, this to ensure that standard packs are put up by the various Associations. Marketing and distributing, although not under the direct

control of the Exchange are conducted on their advice, and the local Associations would not send fruit to any market against such advice.

As to the method of handling Lemons, these are sorted for quality on delivery at the packing house, and sterilised to kill all mould spores. They are then put into storage rooms at a regulated temperature, which varies according to the time it is desired to keep the fruit. When the fruit is ready for market, it is brought from the store rooms and wrapped and packed in the usual way.

2. Advertising is divided into classes. Firstly, "consumer advertising," which is done per medium of the periodicals and magazines (examples of which can frequently be seen in those American journals which reach this country). This line of advertising is generally to draw the attention of the housekeeper to the hundreds of uses to which Oranges and Lemons can be put, also setting out their value from a medicinal point of view, for any of the common complaints and sicknesses.

Secondly, "retailer advertising" is carried out more by personal advice and assistance to the retailer. This is done by the Retailers' Service Department, which is composed of a force of officers trained in the art of conducting "Orange Weeks," making special window displays, etc., etc.

The jobber, to whom the fruit is first sold, is reached per medium of the Exchange representatives at the big markets throughout the United States, thus maintaining a close personal touch with the wholesale buyer.

As this system of selling and popularising the fruit has been in force for a good many years, no doubt it is because it has proved the most effective.

3. The general advertising campaign of the Exchange has been in existence for so long that it would be difficult to say what proportion of the increased demand has been due to that campaign. Perhaps the best guide to its efficacy is the fact that 10 to 15 years ago both Oranges and Lemons were considered to be overproduced, and in some cases groves were being pulled out, but we find that a steadily increasing production ever since has been satisfactorily disposed of.

4. It would be difficult to compare the prices realised in California with those secured by Australian growers. Prices fluctuate there almost to the same extent as they do here, and vary also because the Orange season extends the whole year round, and different localities are able to market their fruit when the demand is keener. Generally speaking, the grower reckons he must receive two dollars (8/4) per box for his fruit, in order for it to be a paying proposition. A "box" is equivalent to one and one-third bushels. During the summer of 1922 Lemons returned to the growers of Southern California to 5 and 6 dollars per box nett, whilst last year it is pretty safe to say that the average price was under 2 dollars, and, from some localities, 1 dollar per box.

In reference to the correspondence in your paper as to the price of Lemons for factory purposes, very little fruit is grown there of the kind which is used by our factories.

Lemons are picked so regularly in a normal year that there is no fruit exceeding 2⅜in. in diameter, and without doubt, the greatest proportion of the fruit produced pays higher returns on the markets. Factory fruit is generally culls from the packing houses, and a very large proportion of it, particularly during 1924, is taken for the **Lemon By-Products Company, which is owned by the Californian Fruitgrowers' Exchange.** This concern manufactures citric acid, pectin, oils, and various other products. The nett return to the grower for fruit sent to the by-products factory rarely exceeds £3 per ton. That may seem a very low return, but, because of the small proportion of the total product of Lemons in California, it affects only in a very small degree the growers' average return.

Trusting these replies will be helpful.—Yours, etc.,

J. S. VAGG.

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**Fruit Export.**—We are in receipt of advice from Mr. H. G. Colombie that he is sole Australasian representative for the International Frugt Import A/S Copenhagen, Denmark. Mr. Colombie is now representing many of the leading overseas fruit brokers, the names of which can be seen in his advertisement published on page xviii. of this issue. Mr. Colombie's registered cable and telegraphic address is "Columbine," Melbourne, and for those who are desirous of getting in touch by 'phone, can do so by ringing J 1223.

## WILLIAMS PEARS EXPORT.

**Experimental Shipment per s.s. "Surrey."**

By the steamer "Surrey," which vessel sailed from Melbourne on 6th February, the State Rivers and Water Supply Commission made on behalf of the Shepparton, Ardmona and Harcourt growers an experimental shipment of 6,474 half-cases of Williams Pears. Special attention was paid to the selection, grading and quality of the fruit, which appeared to be in excellent condition when shipped. The results of this shipment will be awaited with the greatest interest by growers of this particular variety.

Messrs. Parnham Pty. Ltd., the Victorian representatives of the "White" Service, have received instructions from the Department entrusting the sale of the consignment to Messrs. White & Son Ltd., of Hull, which firm will determine, on arrival, whether the whole of the fruit shall be sold in Hull, or portion left in the chamber and carried round to London.

Messrs. Parnham Pty. Ltd. will be pleased to give growers any particulars received by cable from Messrs. White & Son after 20th March, which date the vessel should arrive. Their address is 60 Queen-street, Melbourne.


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# New South Wales.

## Doradillo Grape Industry.

### Expert Committees Recommend Abandonment.

THAT the Doradillo Grape industry where the crop is grown for distilling in N.S.W. is in a hopeless position is indicated in the report of the committee appointed by the Federal and State Governments to investigate the prospects of the industry.

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As far as N.S.W. is concerned, the recommendation in effect is that the Doradillo vineyards on the Murrumbidgee irrigation areas should be uprooted as being a losing proposition.

Figures relating to the cost of production are given in respect to plantings in various parts of N.S.W., Victoria and South Australia. It is estimated that the crop in the M.I.A. for the 1925 vintage will be Wine Grapes, 4,800 tons; Doradillos, 2,000 tons; Gordos, 500tons; total 7,300 tons.

The committee further estimated that of this output there would be 2,800 tons of Wine Grapes and Doradillos for which there will be no outlet. That is indeed a bad outlook for the growers, the majority of whom are soldier settlers. The committee recommends the formation of certain compulsory pools to stabilise the distilling and wine industries.

The suggestion is not likely to have the support of the N.S.W. Government, the policy of which is entirely opposed to any form of compulsory pools.

The committee comprised Federal and State viticultural officers, and Mr. L. M. Salter, Acting-President of the Federal Viticultural Council.

### N.S.W. State Advisory Board.

The sixth meeting of the N.S.W. State Fruit Advisory Board was held at Sydney on January 22.

**Present.**—Gen. Heane (in the chair) Messrs. H. S. Wark, F. A. Nicolson, H. G. Such, N. H. Case, A. J. Cooper, W. G. Roughley, W. J. Allen, and E. D. Butler.

The chairman cordially welcomed Mr. Roughley as representing the local distributors.

**Finance.**—The chairman reported having signed an application for a further advance of £250, and had given an undertaking that the money so advanced would be repaid when funds are available from orchard registration fees.

**Plant Diseases Act.**—The chairman's action was endorsed for congratulating the Minister for Agriculture on the passage of the Plant Diseases Act. It was stated that the draft regulations under the Act were being prepared.

**Apple and Pear Grading Regulations.**—Mr. A. E. Herring, Batlow, attended by request, and pointed out certain weaknesses in the present Commonwealth grading regulations and advocating regulations based on those in force in Oregon, U.S.A.

It was decided to recommend that the grading regulations as amended be adopted in regard to the N.S.W. market for the ensuing season. It was also decided to place the regulations before the Australian Fruit Council.

**Wembley Exhibition.**—It was decided that no action be taken on the lines suggested by the Australian Fruit Council, but to recommend that fruit for the Wembley Exhibition should be purchased by the Exhibition committee through the Advisory Board.

**Shipping Strike.**—On the motion of Messrs. Cooper and Roughley it was decided "that the Board views with deep concern the heavy losses incurred by members of the fruit trade and growers by the shipping hold-up of the steamers "Wyandra," "Canberra," "Cooma," and "Bombala," and suggested that the law be enforced in all cases immediately such act occurs."

**Constitution of Board.**—A general discussion took place on the constitution of the Board and method of appointment of members. No decision was reached.

**Re-organising the Agricultural Department.**—Major H. R. Hallard, Manager of the N.S.W. Central Citrus Association, attended by request and submitted suggestions for the re-organisation of the Fruit Branch of the Department of Agriculture into sections providing for the appointment of (a) citrus expert, (b) deciduous expert, (c) vines expert. The establishment of research and experimental stations and the selection of students to take courses at the Californian Universities.

It was decided on the motion of Messrs. Such and Wark to agree with the proposal, and that the committee be appointed to go further into the matter.

**Apple Export to Hawaii.**—Correspondence was read from the Australian Fruit Council forwarding a suggestion from Sir J. H. Carruthers that the restriction on the export of Australian Apples to Hawaii might be removed as the regulations were

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chiefly directed against the fruit fly.

It was decided to recommend the Federal Government to take the necessary action and to thank Sir J. H. Carruthers.

**Fresh Fruit Export Control.**—The Bill drafted by the committee of the Australian Fruit Council was submitted. Several amendments were suggested, provision to be made for the charge to be imposed under the Act to be fixed at 2d. per bushel case. The N.S.W. Central Citrus Association was invited to state whether Oranges should be included. On the motion of Messrs. Case and Wark the draft act was endorsed.

**Dried Fruits Control.**—Mr. Such stated that the failure of the N.S.W. Government to pass legislation to control the dried fruits industry would render the Dried Fruits Export Control Act ineffective.

It was decided to recommend the State Government to enact legislation to secure to growers of dried fruits (except Prunes and Apples)—(a) an equal share of the protected home markets to all growers by means of a prescribed export quota; (b) the licensing and strict inspection of all packing sheds; (c) the institution of a vigorous publicity campaign with a view to increasing consumption.

**Registration of Fruit Agents.**—A resolution was carried urging the early introduction of legislation to provide for the registration and control of fruit selling agents.

### N.S.W. Fruitgrowers' Federation.

A meeting of the Board of Management of the Fruitgrowers' Federation of N.S.W. was held on January 23rd. General Heane presided.

**Finance.**—Serious attention was directed to the reduction in finance owing to the capitation fee being 7/6d instead of 10/- as previously. It was decided to request an addition of 2/6d per member, otherwise the Board could not carry out its functions.

**Advertising Fresh Fruit.**—The Running Stream Fruitgrowers' Association wrote suggesting that fresh fruit be advertised on the proposed advertising train to be run under the auspices of the Australian Made Preference League. It was decided to support the proposal.

**London Markets.—Mr. A. J. Arnot's report.**—Mr. Case referred to a report which was received by Mr. A. J. Arnot in which reference was made to the conditions of marketing of Australian fruit in London. The report was read but it was decided to take no further action.

**Fruit Fly.**—Mr. Wark stated that Bathurst growers desired restrictions to prevent summer fruits entering Bathurst owing to the risk of the fruit fly. The secretary said that the Department was about to impose the total prohibition of all fruit from the counties of Cumberland, Camden and Cook. It was decided that steps be taken to have the conditions varied in order to allow the entry of fruit from orchards with a clean certificate.

**Woolly Aphis Parasite.**—The secretary reported that the Department of Agriculture had not yet released the Woolly Aphis parasite (Aphelinus Mali), it being still in quarantine owing to the danger of fire blight.

**Australian Conference of Fruitgrowers.**—After a discussion it was decided that the matter of renewing affiliation be deferred.

**Annual Conference.**—It was decided that the annual conference be opened on June 2nd.

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### Orange District Growers.

### Testing Brisbane Market.

Sydney (20/2/25).

Urged by the necessity for securing a new and more favorable market for fruit owing to the continued slump in Sydney, mainly due to the shipping strike, local fruitgrowers have tested the Brisbane market. So successful has been the initial venture that the Orange Fruitgrowers' Association has decided to send a large consignment to the Queensland capital.

Accordingly a 12-ton truck of Plums and Apples was despatched. Next week twice that quantity will leave there. Prices received are considerably in excess of Sydney figures, after deducting the small extra

freightage. The Fruitgrowers' Association voted a sum of money to send the secretary to Brisbane to investigate the market. Should his report be favorable local growers will exploit that centre.

## GRIFFITH.

### Citrus and Canning Fruits.

**Re Citrus Crops.**—We are now in a position to estimate the crops here, writes Mr. H. G. Such, General Manager of the Griffith (N.S.W.) Producers' Co-operative Co. Ltd. Speaking generally, the crop is a medium one—last year it was light, the total bushels packed at Griffith and Yenda being 25,000 bushels. Navels this season should pack about 30,000 bushels, and Valencias the same. Mandarins are only in light supply, owing to restricted plantings. There is a good average crop of Winter Lemons in sight, and probably 100 tons would cover it.

**Canning Fruits.**—The middle of the season is upon us, and heavy supplies of Golden Queens and Pullars are expected to be harvested, covering probably 2,000 tons. Nearly all this fruit is being railed 40 miles to the Leeton cannery in open lug boxes, and the balance to the Sydney canneries. There is a growing demand, and an apparent necessity for a local cannery to can Griffith and Yenda fruit on the spot, and negotiations are now in progress with the New South Wales Government in this connection.

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## MURRUMBIDGEE IRRIGATION AREAS.

### (By Our Correspondent.)

**Leeton (18/2/25).**

**Pears.**—This fruit has been more prolific than at any other season since the start of the scheme of irrigation. The yield has been over five hundred tons. The cannery has yet about two hundred tons to process. The Sydney canners fought shy of our Pears this season, and only a small quantity, barely 50 tons, went to the fresh fruit market in Sydney.

**Plums.**—The yield has been close on 400 tons, of which 150 tons have been dealt with by the cannery, 100 tons by the Sydney canners, and about 150 tons for the fresh fruit market.

**Figs** will probably show a yield of about 100 tons. Fifty tons will be accepted by the cannery, and the balance will be equally divided between the Sydney factories and the fresh fruit market.

**Peaches.**—The Elberta gave a yield of, say, 2,000 tons. Out of this the Leeton cannery processed 900 tons, the Sydney factories 600 tons, and the fresh fruit market 500 tons.

Several of the intermediate Clings have been already dealt with. Golden Queens are now being harvested, along with the balance of Phillip Cling. A fair estimate for the Cling production on the areas is 4,000 tons. Of this quantity, 2,500 tons will be processed at the Leeton Cannery.

### Leeton Cannery.

In my last month's report I mentioned that things between the Leeton cannery and the suppliers were of a pleasant character. The same remark applies to suppliers of other fruits than Apricots.

There was a strike of the girls for a few hours on the 17th instant over the rate for Pears, but this was adjusted by the management agreeing to pay up to 1/3 per box for peeling and cutting.

About 480 girls are now working at the Leeton cannery, and taking them all round they are a good lot. Before the Pullar Clings arrive, this number will be materially increased.

The Griffith suppliers are holding a meeting to ascertain the views of the settlers in reference to the erection of a cannery at Griffith. In the meantime Mr. Seaton, of the Leeton cannery, will represent its interests at Griffith.

The position of assistant cannery manager for Leeton, so freely advertised, has not borne fruit, a suitable applicant not having been found. With the very heavy output the cannery will have to deal with, the manager without an assistant will be a most tired man at the end of the season.

**Yanco Agricultural Show.**—This was held on the 10th and 11th instant, and the fruit exhibits were a slight improvement on previous years. A curious anomaly was a settler getting a prize every year for dried fruit he had exhibited on previous years at the Yanco Show. A satisfactory feature of the show was that of the Yanco High School "own farm exhibit of produce actually grown on the farm." The headmaster of the school is a good type of agriculturist, and is turning out a number of young farmers and orchardists from the school.

**Soldier Settlers.**—A meeting was held on the 16th instant with the object of forming a co-operative agency and packing shed. The Government is prepared to substantially assist the movement. Messrs. Fackender (butter factory), Beverley (State Fruit Instructor), and Monfries were invited to address the meeting. A further meeting is to be called to decide on the question of a member's mandatory clause, before the company becomes a working concern.

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### CURLWAA IRRIGATION AREA.

During the three months ended 31st December last, weather conditions were favourable to the production of fruit on the Curlwaa Irrigation Area, the season generally being cool and pleasant. The rainfall in October was 115 points, in November 2.52 points, and in December 146 points—a total of 513 points.

All varieties of fruit are carrying excellent crops of good quality, and owing to close and persistent attention to spraying, insect pests have been kept well in check.

Some anxiety has been experienced in regard to the effect of rain on Currant crop, which are now fast ripening, but fortunately only a few light showers have eventuated, and no damage has been done.

For the first time a departure is being made by adopting in part, what is known as the **"cold dip process"** for treating Grapes.

Work will soon begin on the Grape harvest, and a spell of good warm weather is desired to complete the process of drying early.

There has been a good setting of citrus fruit, and given an equally good market this year results should be very satisfactory. Quite a large area has been planted with citrus trees, which are looking bright and healthy.

The height of the river has been very consistent. On 1st October the gauge reading was 15 feet 6 inches. On the 18th it reached 19 feet, and maintained that height nearly to the end of the year, when the reading was 20 feet.

**Motor Spraying.**—Readers' attention is drawn to the advertisement of the Cooper Engineering Co. Ltd., which appears on page xxiv. of this issue. The Cooper "Perfect Balance" Sprayer operates a full eight hours on less than one gallon of petrol, and it is estimated the actual running cost is 4½d. per hour. Descriptive pamphlets can be obtained by writing to the Cooper Engineering Co. Ltd., 350 Spencer-street, Melbourne, and 129 Sussex-street, Sydney.

## Victoria

### Satisfactory Fruit Crops.
### New Cool Store.

**Gorae, via Portland.**—We are pleased to report that the fruit crop is one of the best ever seen in this district. Many of the growers are shipping large quantities abroad.

A new and up to date **Cool Store** has been built here for Messrs. Williamson Bros. and Hedditch, under the supervision of Mr. W. J. May, of Melbourne. The store will be a great benefit to the growers in this district who were always previously compelled to sell at the time of picking.

### PROSPECTS AT TRESCO.

Writing under date February 24th Mr. J. P. Greenwood, Manager of the Tresco Fruitgrowers Co-operative Association Ltd., gives the following interesting information,—

Prospects in Tresco for the coming season in Doradillo Grape crop and Sultanas are promising well. To date no sale of Doradillos has taken place, but hopes of a decision soon after conference of growers, distillers and buyers is held on 26th February, are held out.

The sale of dried fruits should tend to improve with the better methods of organisation to be adopted by State and Federal Governments.

The showing of Doradillos at present would give an approximate estimate of 1,250—1,500 tons.

**Citrus Growers** are looking forward to better returns when the completion of concreting all channels is completed by the State Rivers and Water Supply Commission, a large portion of the work having already been done.

The estimated crop of Washington Navels for the coming season is 15,000 cases; of Lemons (of which the major portion will be sold to factories), is 50 tons.

Negotiations are in hand for the taking over by Closer Settlement Board 13 blocks now held by ex-Service men. The success of the negotiations is hoped for by those concerned.

The Tresco Fruitgrowers Co-operative Association Ltd. Packing Shed, handled last year 17,000 cases of Oranges, 4,000 cases having been sold direct from the shed, and 1,450 one and one third bushel cases were exported, 850 to Great Britain, and 600 to New Zealand, the prices realised on the respective markets were fair, but owing to the cost of handling charges being so high, growers did not receive anywhere near the average price realised on local sales.

### VICTORIA FREE OF FRUIT FLY.

**The State of Victoria is free from the fruit fly. Officers of the Department have searched diligently, but no trace has been discovered.**

This is good news: credit must be given to the Department for its effective campaign last season.

The Quarterly Council meeting of the Victorian Fruitgrowers' Central Association was held at Melbourne on February 19. Mr. J. W. Bailey presided, and there was a good attendance.

Appreciation was expressed of the action of the Railway Department in running the fruit train through on Saturday to Albury instead of incurring the 24 hours' delay at Benalla. Matters for re-organising the Association were discussed. Mr. J. M. Ward outlined the methods of control, both for Brown Rot and the Transit Rot.

### Better Farming Train.

The No. 4 Better Farming Train will leave Melbourne on March 9 for Cobram, Gunbower, Elmore, Rochester, Echuca, Tongala, Tatura, Numurkah, Shepparton, Stanhope and Murchison. A portion of the train has been allotted to the Horticultural Division of the Department of Agriculture, and special exhibits will be shown, including lectures given on Diseases and Insect Pests, Viticulture, Citriculture, Grading and Packing Fruit.

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WESTERN AUSTRALIA:
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J. A. REDPATH & SONS Ltd.
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*Use*

# SULPHATE of AMMONIA

*(The Ideal Nitrogenous Fertiliser)*

*"There's Money in it!"*

*Sulphate of Ammonia literature from—*

The Australian Gas Light Co., Haymarket, Sydney, N.S.W.; The Broken Hill Prop. Co. Ltd., Newcastle, N.S.W.; The North Shore Gas Co. Ltd., 193 Alfred Street, North Sydney, N.S.W.; The Metropolitan Gas Co., 196 Flinders Street, Melbourne, Vic.; South Australian Gas Co., Weymouth St., Adelaide, S.A.

## Western Australia.

(By "Sou'-West.")

THE stone fruit crop this season has been exceptionally light, consequently those growers who were fortunate enough to have any crop at all have been more than satisfied with prices. At Xmas time up to 44/- was paid in the markets, while even the end of January saw up to 35/- being realised for mid-season fruit. In the shops one was asked 10d. and 1/- per lb. for very medium quality stuff, with Plums at the poor man's price of 8d. This is, of course, very satisfactory to the grower—who is entitled to as much as he can obtain for his produce, and is never over paid at that. From a health point of view, however, the "Eat More Fruit" slogan finds an untimely end among the consumers, and consumption slumps with a thud until such time as prices become normal.

Bridgetown Apple growers have decided that moral suasion is the only means at their disposal of tackling the problem of marketing better fruit. At a recent meeting the growers' association debated the question at considerable length. One member contended that so long as some growers received the cash they did not care what they packed in the cases. Another was of opinion that conditions would not alter until

**uniformity of packing**

was introduced; what was blemished fruit to one grower was prime to another. He mentioned an instance where forty cases of windfalls were marked and sold as special grade. Being unable to agree on a method of stopping the practice, which undoubtedly is to the detriment of the industry in the long run, the meeting, as stated, fell back on moral suasion as a means of checking the dishonest practices of a certain small section.

Speaking of quality, a Perth weekly comments in no uncertain voice on the same matter. "There's a stinging rebuke (it states) to Australia in the press comment from the Straits Settlements anent the poor quality mutton and fruit forwarded from the Commonwealth for consumption there. From all accounts both the meat and the fruit are second grade—"scourings of the market," as it has been termed—and certainly tending the right way to lose the small, though growing, trade of those parts. The sooner all exports from Australia are rigorously examined prior to shipping, the sooner will other parts of the world recover their confidence in our products."

Climbing cut worms have been causing serious loss among growers, especially in the Mount Barker district, where several have lost the whole of their crop. The outbreak was the most serious that has been known for several years past.

A well-known resident of Balingup, returned from a trip to England, told a reporter that he had purchased three cases of Harvey (W.A.) Oranges at the Empire Exhibition. The Oranges carried splendidly, not a bad fruit being found in the cases. The cost was 25/- per case. This is a feather in the cap of the Harvey citrus growers, who had rather a bad time last export season, owing to a large number of cases being condemned prior to shipment.

**1925 Export.** — The Officer in Charge of Fruit Industries reports that 237,000 cases, mostly of Apples, have been booked for export this season. Of these Fremantle will ship 127,000 cases, Albany 85,000, and Bunbury 25,000 between the dates of February 23 and May 18. There is a possibility of a slight increase in late shipments if the prices realised by early consignments are satisfactory.

In conversation with a Bunbury shipping agent a few days ago I was informed that the position in that port is far from satisfactory. For years past fruitgrowers in the South-West, especially Apple growers, have agitated for more steamers to lift fruit at the South-West port. Year after year efforts were made, until

last season saw two steamers putting into Bunbury for Apples and Pears; the result of this move was regarded as satisfactory by growers, who complimented the lumpers on their careful handling of the, to them, unaccustomed cargo.

For the present season two steamers have again been secured, but owing to a number of growers having disposed of their crop to outside buyers, most of whom ship only through Fremantle, the agents have been able to secure only 15,000 cases for the first boat.

The position is more serious than growers seem to realise, stated my informant, as unless they are prepared to support the boats calling at Bunbury agents will be compelled, much against their desires, to eliminate the South-West port. It does not pay them to divert a steamer to Bunbury for the sake of lifting a few thousand cases.

The matter is in the hands of the growers. If they are not prepared to support what the agents are doing for their benefit, they must not complain if Bunbury as a port is wiped off the list in the near future. All the talk in the world about the "natural outlet for the South-West" will avail nought unless growers show their practical support.

## Meeting of the State Fruit Advisory Board.

A MEETING of the Western Australian State Fruit Advisory Board was held at Perth on January 7th. Mr. Owen Sparks presided, and there were also present: —Messrs T. Skinner, Gus Sharp and F. Simper (Fresh Fruits, F. J. Beecher and G. Schmidt (Citrus Fruits), A. H. Convoy and P. H. Taylor (Dried and Fresh Grapes), A. H. Dickson (Fruit Shippers). and Geo. W. Wickens (Dept. of Agriculture).

### Subsidy on Fresh Grapes.

Mr. Convoy reported that the Federal Cabinet had agreed to guarantee exporters of Ohanez Grapes against loss to the extent of 4/- a case, provided the net return to the grower did not exceed 14/- a case.

Messrs. Convoy and Taylor stated that no bounty was needed, and that if one were given it might lead to inferior fruit being shipped. Members stated that the trade had long since passed the experimental stage (in 1912 the export was 10,557 cases), and a resolution was carried affirming that an export subsidy was not necessary.

### Enquiries in England.

With reference to a letter from Mr. A. T. Booth, Secretary of the Mt. Barker Fruitgrowers' Association, who is visiting England this season, the Board expressed confidence in Mr. Booth, and stated a report of his impressions would be appreciated.

### Fruit Packing Instruction.

The Minister for Agriculture notified that he was prepared, if growers provided the fruit, cases and wrapping paper, to arrange for an Orchard Inspector to give a series of demonstrations. Decided to accordingly advise the following Associations:— Manjimup, Mt. Barker, Bridgetown, Donnybrook, Harvey, Kalamunda, Chittering Brook, and Capel.

### British Empire Exhibition.

A letter from Mr. Mulvaney, Secretary of the Australian Fruit Council, requesting fruit for the Wembley Exhibition in 1925 caused considerable discussion.

Members stated that after repeated enquiries, no information had been received regarding the prices realised for the fruit supplied for the 1924 Exhibition. No account sales had come to hand, and no money. It was decided by resolution that owing to this dissatisfaction, the Board was not prepared to arrange for 1925 supplies on the same conditions as in 1924: fruit must be paid for f.o.b. Fremantle.

### Export Grading Regulations.

A communication from the Secretary of the Australian Fruit Council in connection with this matter received attention.

It was pointed out by members that it would be a great mistake just as growers were becoming acquainted with the regulations, as they were enforced last year, to again have them altered.

It was resolved to reply, stating "that the Board considers a great mistake will be made if the proposed alteration in the regulations is effected, and the W.A. State Fruit Advisory Board is of opinion that no alteration should be made until such is **considered at a full meeting of the Australian Fruit Council.**"

### Fresh Fruit Export Control.

A letter from Mr. Mulvaney, enclosing draft of a proposed Act relating to the export of Fresh fruits received consideration. and after considerable discussion, the following resolution was carried:—

"That this Board is not sufficiently seized with the advantages expected to accrue by the appointment of a Board which would control the export of fresh fruit, and as it is now too late for the control to be effected this season, the Board would prefer to have the subject fully discussed at a thoroughly representative meeting of the Australian Fruit Council before further action is taken."

### Freight on Local Fruit.

Mr. Simper stated that whereas growers could forward a case of fruit to any port in W.A. for 5/-, growers' agents had to pay 15/- per case. A resolution was carried urging that the freight be fixed at 5/- for both growers and their agents.

### Payment of Freight in London.

A telegram was read from Mr. Mulvaney, in response to the Board's letter (following the November meeting) "that the matter re paying freights in London was in the hands of the High Commissioner and the Agents-General in London, but that the results of their representations were not known."

The W. A. Fruit Advisory Board will not supply fruit for the 1925 Wembley Exhibition unless it is paid for f.o.b Fremantle.


# Ringwood SHOW

## March 20 & 21

**1925**

**THE LEADING AUTUMN SHOW OF THE STATE.**

FRUIT, FLOWERS
POULTRY, Etc. Etc.

Held in Spacious Halls and Marquees right opposite Ringwood Railway Station

Night Watchman Provided
Carrier in Attendance

Government Certificates
Blue Ribbons
Specials and Grand Specials

*Schedules on application to the Secretary,*

*G. W. MULLER,*
*Ringwood*

# New Zealand.

**Average Crops of Most Fruits are Being Harvested, but Brown Rot and Other Diseases Have Done Much Damage.**

The Director of the Horticulture Division (Dr. J. A. Campbell) has received the following reports from his officers regarding orchards and marketing conditions at the end of January, 1925:—

**North Auckland.**—Apples and Tomatoes: Average crop. Lemons and Oranges: Heavy. Nectarines, Peaches and Plums: Short crop. Pears: Short to average crop.—(P. Everett).

**Bay of Plenty.**—Apples: Good clean crop most varieties. Lemons: Look very promising. Nectarines: Light. Brown Rot prevalent. Peaches: Average. Paragons picking well. Pears: Average. Plums: Light. Plums (Japanese): Fair.—(N. J. Adamson).

**Waikato.**—Apples: Good average crop. Lemons: Promise of good crops. Nectarines: Short. Oranges: Promise of average crop on Poorman variety. Peaches: Generally light. Pears: Heavy. Plums: Average. Brown Rot setting in. Tomatoes: Supply up to average. Blight prevalent.—(W. Benzies).

**Gisborne.**—Apples: Fair. Moth and Spot control good. Apricots: Good. Lemons: Indications for good average crop. Nectarines: Good setting. Brown Rot has reduced crops more than 50 per cent. Goldmine most satisfactory. Peaches: Good crops. Owing to continuous moist weather, Brown Rot is rampant. Pears: Average to heavy. Plums: Average to light. Plums (Japanese): Heavy. Walnuts: Average.—(G. H. McIndoe).

**Hawke's Bay.**—Apples: Good average. Black Spot is more prevalent than usual, though by no means severe or general. Pears: Fair average. Late varieties light. Stone fruits: Good average crop (reduced by Brown Rot, which is more troublesome than for many years past). Tomatoes: Many plantations are affected with blight.—(W. H. Rice).

**Wanganui.**—Apples, Pears and Tomatoes: Average. Peaches: Moderate. Plums: Short crop. Walnuts: Short crop. Heavy rain caused fairly heavy dropping of Apples.—(H. F. Frost).

**Manawatu and Wairarapa.** — Apples: Sturmers, Cox's, Dunn's, above average; Delicious, fair; others, patchy. Apricots: Good crop harvested. Nectarines: Fair. Peaches: Above average. Pears: Heavy. Plums: Supply exceeds the demand locally.—(J. W. Whelan).

**Nelson.**—Apples: Sturmer crop better than anticipated, but affected with Black Spot. Export packing commencing early in February with Worcesters and Cox's, followed by Dunn's. Lemons: Fair setting. Nectarines and Peaches: Light to medium. Pears: Medium. (Fair amount of Black Spot). Plums: Light. (Brown Rot). Tomatoes: A good crop, but Irish Blight very bad in most gardens, resulting in the loss of thousands of cases. Walnuts: A fair showing, but a great deal of disease in the nuts.—(J. H. Thorp).

**Nelson Central.**—Crop prospects are average.—(C. Craigie).

**Motueka.**—Apples: Medium, but inclined to be dirty in some parts of district. Sturmers and Delicious more Black Spot than other varieties. Heavy crop of Jonathans, and fairly clean. Cox's very good. First picking for export of Worcesters and C.O.P. starts first week in February. Pears: Patchy. Majority going to jam factories. Plums: Fair average, practically all going to factories. Walnuts: Small crop. Lot of dropping.—(G. Stratford).

**Marlborough.** — Apples: Fair to good. Much damage by Black Spot. Apricots: Good crops harvested. Nectarines: Fair to good. Peaches: Fair to good. Pears: Heavy. Plums: Good. Walnuts: Average. — (M. Davey).

**Canterbury.**—Apples: Very patchy, especially the dessert varieties. Good deal of Spot. Apricots: Late varieties cracked badly, owing to frequent rains. Nectarines: Good. Peaches: Ripe. Rot bad; heavy crops: prices low. Pears: Crops, average, except Cole's. Less Spot than usual. Plums: Very heavy. Prices low. Ripe Rot very bad. Plums (Japanese): Heavy. Prices low: some Ripe Rot. Walnuts: Medium. A good deal of disease.—(L. Paynter).

**Otago and Southland.** — Apples: Average crop. Jonathans and Dunn's a short crop. Powdery Mildew prevalent throughout district. Black Spot in evidence in some localities. Nectarines: Heavy. Peaches: Heavy. Pears: Average. Black Spot in evidence in some localities. On the whole fruit small, owing to insufficient thinning. Walnuts: Heavy crop. Bacteriosis in evidence.—(W. K. Dallas).

**Otago Central.**—Apples: Medium to light (although earlier in season promise of heavy crops). Powdery Mildew and leaf hopper not so prevalent. Peaches: Heavy; trees recovered from attacks of Peach Curl and Green Aphis. Pears: Heavy crop except Nelis. Tomatoes, attacked by disease at present unknown. Walnuts: Average crop. Black Spot attacking nuts. —(B. G. Goodwin).

**Red Hill and District Agricultural and Horticultural Society**

FOURTH

**ANNUAL SHOW**

To be held on Show Grounds (opposite State School) on

**Wednesday, 25th March, 1925**

To be opened by Mr. Downward, M.L.A.

Luncheon and Refreshment Booths.

TROT, HURDLES, BARREL AND FLAG AND BENDING RACES, LOG CHOP.

Cars will run from Station.
Watch for Dodgers re Special Train.

Further particulars, Schedules and Entry Forms obtainable from the Secretary—

H. W. AMOS
*State School, Red Hill, Vic.*

**The "NO DELAY" NOZZLE**




SAFETY NOZZLE

ANGLE NOZZLES - - - 5/3
STRAIGHT NOZZLES - - 4/9
Post Free.

**WHAT IT DOES**

A user states:—
I saved over 1 cwt. of Arsenate of Lead in a fortnight using 2 EDGELL SPRAYS.

DOES BETTER AND FASTER WORK AND SAVES ITS COST OVER AND OVER AGAIN.

**DISTRIBUTOR**

**The "EDGELL" PATENT SPRAY PISTOL**



Don't Delay! Remember the 1st weeks spraying pays for your pistol

**T. W. SANDS**
367 POST OFFICE PLACE - - - MELBOURNE

## ECONOMICAL DISTRIBUTION IN GREAT BRITAIN.

### Manchester Asserts her Claims.

It is estimated that 90 per cent. or thereabouts of all the refrigerated produce imported into Great Britain from Australia and New Zealand is landed at London, but on a conservative estimate, more than 50 per cent. of the total quantity is ultimately despatched to the Northern and Midland Counties.

As an example of the difference in the cost of forwarding from three of the principal British Ports, to certain towns and cities in the areas previously referred to, the following figures which represent the inclusive Port, storage (for 28 days), and railway transport charges, per ton, for frozen meat, serve to prove the advantage of direct shipment to the Port nearest to the area of consumption:—

| | From Liverpool. | From London. | From Manchester. |
|---|---|---|---|
| To Bolton .. . | 66/1 | 101/- | 48/3 |
| To Bradford . | 82/6 | 99/9 | 63/4 |
| To Leeds .. . | 82/6 | 97/2 | 63/4 |
| To Oldham .. | 74/3 | 94/6 | 49/7 |
| To Sheffield .. | 80/- | 93/3 | 62/1 |

Although the above figures have reference to the cost of forwarding frozen meat, they are equally applicable to fruit and other varieties of refrigerated produce.

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**Somerville Show.**—The annual show of the Somerville (Vic.) Fruitgrowers' Horticultural Association will be held on Wednesday, 11th March at the Show Grounds and Buildings adjoining the Somerville Railway Station. This will be a highly interesting and educational exhibition, and a special train will leave Flinders-street at 9-30 a.m. stopping at all stations, and returning at 5-40 p.m. Further details will be seen in the advertisement on page xxii.

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## CHEVROLET CARS.

In the building of all Chevrolet motors at the huge factory at Flint, Michigan, limits are held as low as two 10-thousandths of an inch. Practically every part manufactured receives 100 per cent. inspection before it is fed into the assembly line. Then such close assemblies are made as:—Piston pin fits into piston to a limit of .0002 of an inch; cam shaft connecting rod, and crankshaft bearings are held to .001 of an inch. As soon as the motor has been assembled, it is given the electric test, being run by an electric motor at 1,200 revolutions per minute, for two or three hours. This test is to take the stiffness out of the new motor, work in the bearings and piston rings, to ensure smooth operation. After this has been completed the motor is taken down, washed, and again thoroughly inspected. Then the motor is re-assembled. Again it is put on a test and run under its own power as a final check-up. The valves are "adjusted," the motor is "timed," and all final adjustments made. Then the motor is put through a steam bath to remove outside grease or oil, and painted with a coat of lead paint, ready to be placed on the chassis.

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Wife: "Henry, dear, to-morrow is mother's birthday, and I'm thinking of sending her a nice travelling-bag."

Husband: "Don't, for Heaven's sake! She may take it for an invitation!"


**STONE FRUITS**
**CITRUS TREES**
**and QUALITY ROSES**

**A Good Start means Everything!**

*BEFORE PURCHASING* send for Lasscock's Catalogue and prices. These South Australian grown trees are unsurpassed for hardiness, healthiness, and vigor. They will jump from the start and bring profit to the grower. Our stocks are excellent and prices right. Special attention is given to packing.

**Lasscock's Nurseries,** Henley Beach Road, LOCKLEYS, STH. AUSTRALIA

**ALGEMEENE VRUCHTEN IMPORT MAATSCHAPPY**

FRUIT BROKERS

(An amalgamation of the oldest and leading firms.)

**AMSTERDAM** De Ruyterkade 39/40.

**ROTTERDAM** Wynstraat 52 B.

**HAMBURG** Stadtdeich 38.

We solicit consignments of Australian Fruit.

For information please apply to our representative for Australasia:

**H. G. COLOMBIE,** 115 Hotham Street, EAST MELBOURNE

Advances against consignments. Shipping Agents at all Ports—For List see larger Advert. Page xviii.

References: Union Bank of Australia, at Melbourne, Sydney and Hobart.




## Poultry Notes

### The Small Egg Problem.

IT may not generally be recognised that slow development in size means early maturity, and the latter in turn spells an undue number of small to medium-sized eggs.

Poultry farmers, says the N.S.W. Government poultry expert, are slowly learning the lesson that the pullets that lay at 4½ months are the root of the small egg trouble. Most of this is preventable.

If the parent stock has been right in respect of size, it only remains to secure proper growth in the progeny. On the other hand, if the stock bred from has been undersized, there is only one thing to do, and that is to secure better breeding stock.

Presuming the stock is all right, the way to secure proper development is to brood the chickens in small batches, and feed them on right lines.

Good conditions and a fair range after the chickens are ten weeks old will do the rest.

The methods recommended reduce the work to as near an exact science as can be.

The trouble, however, in this connection is that some farmers will not conform to the same practice two years in succession, but must try some other way. When it is considered that small pullets' eggs generally make 25 per cent. less price per dozen than those of normal size, the loss through small eggs must considerably reduce the average price obtained on many farms.

Again, if the small eggs were confined to the early pullets just coming on to lay the case would not be nearly so serious, but many of the class of birds referred to continue to lay small eggs during their whole lifetime. Nor should the farmer be deluded into the belief that he has only to introduce a male bird from a flock laying large eggs to get over the trouble in the progeny. The poultry breeder is not immune from the law that "what a man sows that will he also reap."

Once he has introduced a weakness of this kind into his yards, it will take more than one generation to eliminate it. The small birds and small eggs will crop up for many generations.

## Bee-keeping Notes

### Popular Errors Concerning Bees and Honey.

IN a lecture on the above subject, delivered by the Editor of the "American Bee Journal," the lecturer dealt with a few of the many beliefs regarding bees and honey which have been proved to be errors.

Amongst them was the belief that bees damage sound fruit. Many people, seeing bees upon fruit, and seeing such fruit destroyed in large quantities, especially Grapes, take it for granted that bees do the damage, because the bees are caught in the fruit. Yet there are two facts that prove that they do not and cannot do it; the shape of their jaws, which have no teeth, and the evidence secured when a bunch of sound Grapes or other fruit is placed inside the beehive, right among the bees.

Then there is the belief that numerous visits of honey-bees upon the flowers are injurious to the latter. Many people are unaware of the fact that the honey is in the flowers for the purpose of attracting the bees, which, by carrying away both honey and pollen, cause pollen grains to fall upon the pistil or female parts of the bloom and thus fertilise it. In many cases the blossoms could not be fertilised without insects, when some of the blossoms do not contain both the male and female parts in the same flower, and when the male and female parts are not ready for fertilisation at the same time.

Another erroneous belief is that the little yellow or brown pellets that the bees carry on their posterior legs when they come to the hive from the field, is wax.

Few people know that beeswax is made by digesting honey, and that beeswax does not exist in nature without the agency of bees.

Then there is the belief that the wax moth can destroy a healthy colony of bees. This is common among uninformed bee owners as well as among the public. Mr. Langstroth was the first man who had the courage to state that this was entirely false.

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Honey is one of the best foods, and is one of the rare products of nature which does not need manipulation to be assimilable by the stomach.

## Pig Raising

"DO your pigs keep you?" asks a writer in the "Australian Farm and Home."

Many practical farmers and farmers' wives, he says, can answer "Yes, they do. They have just as many pigs as they can grow food to advantage for." The breeder who buys all his pig food might just as well have only one acre of land, with styes built all round the fence, and exercise and sun-bath yards in the centre, but the business farmer knows what food he has and can provide for a given number of pigs, and he limits his herd to that number. Some foolish critics say, "Half the breed goes down the throat," but any breeder knows that it is only by feed, that beef, pork, mutton, or milk is produced.

Just raise as many pigs as you can properly feed, grow the best you can according to the district you are in, and if you can sell some spare turnips, mangolds, and such like to buy grain foods to top off your pigs, it is good business.

If markets for pork and bacon are steady, it is a good plan to feed well from weaning to selling, but if the market is erratic I believe in running pigs in paddocks until wanted. They may be odd and little, but when brought in to fatten will respond quickly to pollard, meals, and grain, and fatten in four or five weeks.

Peas are good to harden pork, if fed for two weeks before killing. On those lines your pigs will surely keep you.

### THE FARROWING SOW.

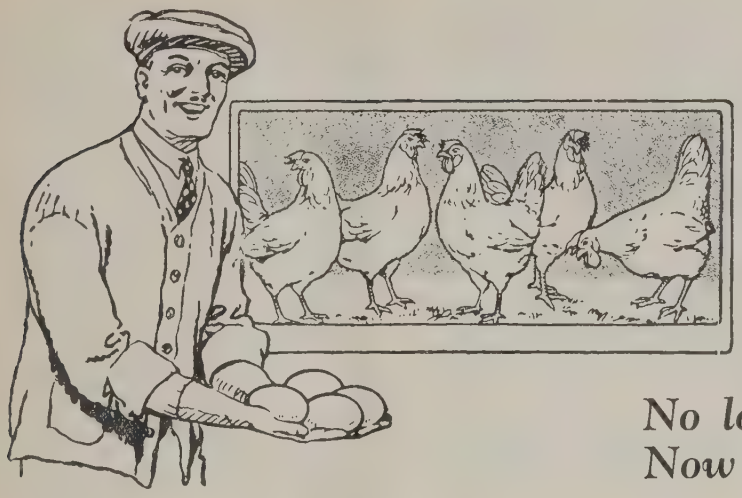
The first essential for the farrowing sow is the provision of clean and comfortable quarters at least a full week before farrowing. A special pigging pen should be provided, with a concrete floor and ample access to light and air.

For the prevention of accidents, a pigging rail is undoubtedly necessary, this consisting of a continuous wooden railing, raised about 9in. from floor level, and encircling the interior of the pen at a distance of at least 18 inches from the walls. This precaution will prevent the crushing of pigs against the walls of the pen.

The addition of "hospital bases" is an advantage. This consists of a broad moulding, which replaces by a gradual curve, the usual sharp right angle between wall and floor. This provision facilitates cleaning. Sows should not be shifted from pen to pen immediately before farrowing, and litter should consist of short straw.

---

The fellow who says it cannot be done is usually interrupted by somebody doing it.



# Year-'round Egg-Laying

## *No longer a dream. Now definitely obtainable.*

FROM time imimemorial the above has been the dream of all poultry raisers It is no longer a dream to those who have used ***Karswood Poultry Spice*** (which contains ground insects). To them it is a full and definite reality; but, like all things that act for bodily good, the process is natural and not sudden. Briefly, what ***Karswood*** does is to tone up the system of a fowl and by so doing replace the nervous energy expended in summer laying.

Just now fowls are beginning to feel the strain of continued laying, and if care is not taken and provision made, listlessness and general debility will soon be in evidence. To get the full benefits from the use of Karswood, and to ensure winter laying, it is therefore essential to supply your fowls with Karswood Poultry Spice now. Once a day is quite sufficient, according to directions, and will be found extremely economical —1/- packet being enough for 20 hens for sixteen days.

Read the following testimonials, and learn what Karswood has definitely done for others:—

### LAID FIVE WEEKS EARLIER.

**249 Bathurst Street, Hobart, Tas. 1st Feb., 1923.**

"I tried Karswood with the best results. As a tonic, it holds a high place in my estimation. In this cold, wet climate last winter I tested it with two lots of White Leghorn Pullets. One lot with Karswood, the other without. Karswood pen laid five weeks before the others, and are still laying.

"The feeding and housing have been the same throughout."

(Sgd.) J. SMALES.

### FROM TWO TO SIX A DAY.

**"Shere," Lindfield, Nth. Shore Line. 3/5/23.**

"I have 11 Plymouth Rock hens, which are now finishing the moult. Egg production was down to an average of 2 per day. A friend of mine advised me to try your Karswood Poultry Spice, and I commenced using it just over a fortnight ago. I am pleased to state that egg production commenced to increase a few days after the first use of Karswood, and for the past week the daily average has been 6 per day.

"The credit is entirely due to Karswood, I am sure, as my neighbours, many of whom have several times as many fowls, have not noticed any improvement in the same time.

"You may be sure I shall tell them of your wonderful Spice."

(Sgd.) (Mrs.) J. ANDREWS.

### NOTE THE ECONOMY.

1/- packet supplies 20 hens for 16 days.
2/- packet supplies 20 hens for 32 days.
13/- (7lb. tin) supplies 140 hens for 32 days.

### SUPPLIES.

"Karswood" Poultry Spice is obtainable from all Stores and Poultry Food Suppliers at the following standardised prices:—

| | |
|---|---|
| ½lb. packet | Price 1/- |
| 1lb. packet | Price 2/- |
| 7lb. tin | Price 13/- |
| 14lb. tin | Price 25/- |
| 28lb. tin | Price 48/- |

If your local dealer cannot supply you, write direct to "Karswood," Box 2138, G.P.O., Sydney, adding postage to the above prices.

## WELL-KNOWN ORCHARD AND NURSERY.

### John Brunning and Sons Enterprise at Somerville (Vic.).

SITUATED in the heart of one of the largest and most prolific fruitgrowing centres of the Commonwealth, known as the Mornington Peninsula, are the well known nurseries and orchards of Messrs. John Brunning & Sons.

The business which is known as the Somerville Nurseries & Orchards, was established some 60 years ago by Mr. John Brunning. The nurseries now comprise some 25 acres of young trees, and many of the most prolific orchards of the Commonwealth to-day, were planted with the young trees from these nurseries. At the time of writing, budding is being carried out, and one block of young Peach stocks, containing about 24,000 of very uniform appearance, are being budded with mainly canning and dessert varieties. These young trees will be ready for sale in season 1926.

In the yearling and two-year-old sections, which will be sold during the coming winter, are many fine specimens of trees, some Plums and Prunes being over five to six feet in height. Prune de Agen, Splendour, Robe de Sergeant and Sugar are the kinds chiefly grown.

In the Apples, which are all worked on Northern Spy stock, Jonathan yearling trees predominate. Undoubtedly this Apple is the favorite of the Australian orchardist. Other varieties showing good growth and sturdy appearance are Yates, Granny Smith, Munroe's Favorite (Dunn's), Delicious, Five Crown, Cleopatra and Rome Beauty.

Orders are already being booked, and planters are assured of well-shaped, healthy trees.

Coming to the orchard, there are altogether 106 acres planted, of which half is in full bearing, the balance being from one to three years old. This young orchard is showing strong growth, and Messrs. Brunning realise that it is best to concentrate efforts on

**not more than five kinds**

of Apples or Pears. However, in the Apples **only four varieties** are planted, Jonathans being in the majority, the other varieties which are Tasma, Granny Smith and Rymer, are planted to act as cross pollenizing kinds, and being late in ripening their fruit, can be conveniently handled after the Jonathan crop has been taken off. The three mentioned are also **ideal for cool storage** purposes, but with regard to the Rymer and Granny Smith, from experience gained in the storage of Apples, the ripening of these varieties, must be very carefully noted, for if they are not picked at the right time, they are apt to scald in the store, or probably soon after they are taken out.

The bearing orchard, some of which is forty years old, has been planted with Jonathan, Reinette du Canada, Five Crown, Rymer, Rome Beauty, and Statesman. Many blocks of trees, by their formation (the limbs growing in a sprawling fashion), show that in the past, very heavy crops have been carried, eight, ten and twelve cases per tree being quite usual in the case of Jonathan, whilst some Reinette du Canadas and Rymers bore as much as sixteen bushels of fruit.

One Winter Cole Pear tree which is of enormous size, and showing remarkable growth this year, produced 22 cases.

The crop prospects for the present year, taking into consideration the heavy crop carried last season, and the unusually wet winter and spring, are very good.

Spraying, which had to be carried out under extremely unfavorable weather conditions, had to be most thoroughly done to check Black Spot, and it had to be attended to frequently.

The Jonathans, which are usually an easy Apple to keep clean, seemed to take the spot very badly this year, and although on the whole are clean, have been russeted considerably in the endeavour to check the spot.

Three applications of Arsenate of Lead have been put on for the Codlin Moth, and in this direction the orchard is clean, but of course, another spraying will be applied.

The present cultivation of the orchard is summer ploughing, which is done with disc ploughs. Cases are also being got ready for harvesting this year's crop, 8,000 being already made.

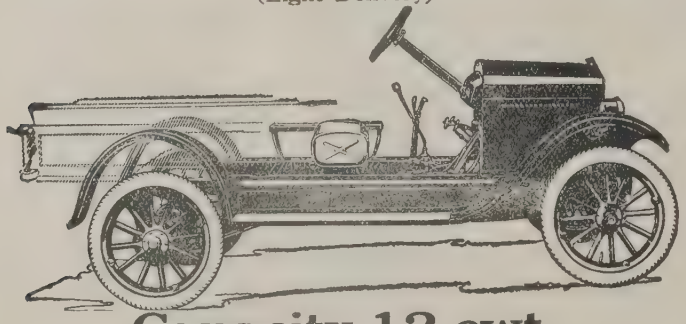
Portion of the crop will be placed in cool storage, some of the balance will be exported overseas, and the rest forwarded to interstate markets.

*for Economical Transportation*

CHEVROLET

Commercial Truck

(Light Delivery)



Capacity 12 cwt.

Chassis Price £195

**This is not an adapted car chassis, but is specially designed for commercial work**

Your local Chevrolet agent will be pleased to arrange demonstration at your convenience.

S. A. CHENEY MOTORS PTY. LTD.
22 Flinders Street, Melbourne

## THE OUTLINE OF A CASE FOR FERTILISERS.

Fertiliser salesmen sometimes meet the type of farmer or orchardist who complains bitterly that "fertilisers are too dear." On rare occasions, however, quite a different type is encountered. This type constitutes the men who would pay double the price for artificial manures rather than try to carry on without them, and there is no doubt that while fertilisers can be obtained at a price which makes their judicious use profitable, any statement that they are too dear, should be associated with wasteful and haphazard methods of farming.

Are fertilisers dear?

Scanning the current year's registrations in Victoria, it is found that on a unit value basis (which is the only true way of arriving at fertiliser values) nitrogenous manures are the most expensive, but if sales figures reveal anything, it is clearly proved that manurial elements providing nitrogen, are not "too" dear. Their sales are increasing yearly, and in some quarters it is believed that the local sources of the supply of sulphate of ammonia—the most freely-used nitrogenous element in Australian agriculture—will soon be insufficient to meet the Commonwealth demand.

Despite their allegedly high cost, nitrogenous fertilisers are going to occupy a much higher place in Australian fertiliser practices than they have in the past. The same might be said for potassic fertilisers, which are available in a very highly concentrated form, and cannot, logically, be regarded as expensive. As for superphosphate, which supplies the great bulk of the fertiliser needs of the Commonwealth, due to the low phosphoric acid stocks in Australian soils, no true evidence of dearness can be brought against it.

The farmer or orchardist frequently overlooks the business aspect of farming, and shows a proneness to charge fertilisers as an expense on the year's workings. Outgoings loom large before him, while returns are ignored.

Fertiliser expenditure, on the contrary, should be regarded as an item of capital expenditure, the definition for which, as supplied by an eminent


LINING PAPER FOR FRUIT CASES

....WHITE OR CLEAN PRINTED NEWSPAPER ....

is now available in large quantities for immediate delivery.

White, cut to size 13 x 42 or 18 x 25. Printed, uncut. Prices on application.

The printed news consists of "Argus," "Age," "Leader" and "Australasian" new, undistributed copies, and therefore is perfectly clean. Cases for fruit neatly lined have an increased selling value.

Prompt enquiries requested to

ESMOND RUSSELL, 60 Queen Street, Melbourne

DISTRIBUTORS TO THE FRUIT TRADE.

Also obtainable from all Western Market Agents, and LAWFORD'S FRUIT EXCHANGE, PTY. LTD., Doncaster.

APPLES for SOUTHAMPTON!

S.S. "Port Caroline"

——WILL LOAD AT MELBOURNE EARLY IN APRIL FOR——

SOUTHAMPTON

Take advantage of this opportunity to test a Market and Selling Organisation much favored by American shippers

For Space, etc., apply---

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SOLE AUSTRALIAN AGENTS FOR

SIMONS (Southampton) Limited

authority, includes the statement that "capital expenditure is expenditure incurred for the purpose of increasing the earning capacity of the business." Instead of the word "business," substitute either farm or orchard, and the definition applies very capably to fertilisers.

Putting it in another way, money spent on fertilisers is in reality, an investment, showing a greater return to the agriculturist than, perhaps, a like sum expended in any other direction.

Glutted markets frequently suggest the inadvisableness of fertilising, particularly amongst fruitgrowers, and while it might be very sound policy to reasonably curtail fertiliser expenses, some possibility of improved prices in the future would indicate the necessity for keeping fruit trees, vines, etc., in the best possible condition against the day of profitable production.

Again, while the market for the mediocre product might be in a very bad state, there seems to be an excellent demand at all times for the prime article. This, then, gives the believer in fertilisers his golden opportunity.

In every rural community, while low prices are being obtained for f.a.q. produce, and producers are bemoaning the chaotic state of affairs generally, individuals are known to be working their holdings at a respectable margin of profit.

Combining the use of fertilisers with good cultivation methods to obtain the maximum yield from every acre tilled, is the secret of securing something more than a bare livelihood from the land. Sir A. D. Hall, of the British Ministry of Agriculture, has very capably summed up the position in the following words:—"If all farmers farmed as well as some, there would be no talk of agricultural depression."


# ARRESTO

**A Positive Remedy for**

TOMATO WILT, TOMATO BLIGHT, DOWNY MILDEW (on Grape Vines), CURLY LEAF (on Peach Trees).

**NON-POISONOUS**

Absolutely Safe to Use.
EFFECTIVE IN THE ORCHARD, THE KITCHEN GARDEN, AND THE FLOWER GARDEN.
Thoroughly Tested.
Numerous Testimonials.
**Packets, 1/6 each (posted, 2/-). In Bulk—7 lb. lots or more—1/3 lb.**
(Postage or Freight extra).

*Sole Proprietors and Distributors*

**LAW, SOMNER**
(PTY. LTD.)
**Seed Merchants and Nurserymen**
**BLOCK PLACE, MELBOURNE**

## AT LAST—SOMETHING FOR NOTHING!

**THE PLANTERS' GUIDE.**—*An illustrated book, containing valuable information with regard to Planting, Controlling Orchard Pests, Cross Fertilization of Fruit Trees, and also accurate descriptions of practically all the leading commercial varieties of fruit trees planted throughout the Commonwealth. Sent free, postage paid, upon request.*

*SEND FOR YOUR COPY NOW.*

**BALHANNAH DECIDUOUS NURSERIES**
Postal address: **BALHANNAH, S.A.**

## An Ideal Orchard and Residential Property
### In the South of Victoria

SUITABLE FOR A SEMI-RETIRED NORTHERN ORCHARDIST OR ONE DESIROUS OF CHANGING HIS LOCALITY.

### 20½ Acres planted to Apples, Pears, Peaches, Lemons and Strawberries

—— TREES MOSTLY SIX TO EIGHT YEARS ——

The property is situated 11 miles from Melbourne G.P.O. by main road and 2½ miles from Railway Station. Frontages to River Yarra and a commanding view of the surrounding country.

The Orchard is well equipped and contains Two Houses (one with electric light), new oil engine, pumping plant, new packing shed, two horses, cow, waggon, lorry, spray pumps, cultivators, tool houses, fowl pens, etc.

An excellent opportunity to secure an Orchard property close to markets, stores, school and church.

*Further Particulars, Terms, etc., from—*

**H. M. WADE & CO., 471 Flinders Lane, Melbourne**

## The Ellis Fruit Grader

**PERFECT GRADING** **NO BRUISING**

In the Ardmona district (Vic.), one of the biggest stone fruitgrowing areas in Australia, the growers, almost to a man, have installed this Grader.

Why have complicated machinery when the Ellis Grader is absolutely foolproof and weather proof, and will **easily do 1,000 bushels per day.**

This is not an Orange Grader only, but **will do all Fruits** equally well. See Testimonials for Lemons, Pears, Apricots, Peaches, Plums, Apples, Oranges. A woman or child can work and manage it, and yet some of the **Largest Packers** in the Goulburn Valley and Mildura have installed them.

Listen to this—We estimated that after having put through the first 1,000 cases of Apricots, the **saving in labour had more than paid for your Grader.**

We are so sure that the machine will give entire satisfaction that we are **prepared to send out on Trial.**

**Book early,** before the rush of **the season** to ensure **prompt delivery.**

**Price, £16/10/- nett. Table and Hopper (complete), £21/10/-, F.O.B. Terms if desired.**

**We are Distributors of the British Wonder Car--The "Arrol-Johnston"**

*Write for particulars.*

**ELLIS GRADER & MOTOR CO., 226 Flinders Lane, Melbourne**

**Colonial and Interstate Agents:—Queensland,** Sthrn. Q'land Fruitgrowers' Assn., Roma St., Brisbane. **Sth. Aus.**—Premier Machinery Co., Morphitt St., Adelaide. **New Zealand**—A. Simmonds Ltd., Heretaunga St., Hastings. **South Africa**—Oswald Bros., Cape Town.

The PROOF OF THE PUDDING is in the Eating

The Proof of Red Hill will be seen at the

# Red Hill Agricultural and Horticultural Show

to be held on

## Wednesday, March, 25, 1925

The **RED HILL RAILWAY ESTATE** is close to the Station, Cool Store, Post Office and Store. The Estate is sub-divided into lots from 7 to 27 acres, a considerable portion of which is cleared. **The Soil is Rich Red to Black Volcanic. NO IRRIGATION REQUIRED.**

**NO DROUGHTS.**—Average Rainfall for 23 years, 37 inches. **NO FLOODS.**—The ground is undulating and drains well. This Estate is suitable for all kinds of cultivation; is specially adapted for Apple and Pear Growing, Passion-fruit, Strawberry, Potato, Onion, and Vegetable Growing, and Poultry Farming.

**Exceptionally Easy Terms. £10 Deposit, £1 Month, at 6 per cent.**

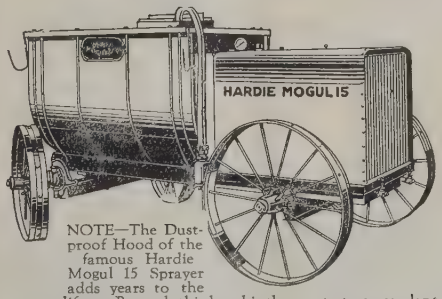
Visit the Show, and see for yourself what this District will produce. Red Hill is only 45 Miles from Melbourne. **Special Return Show Train from Melbourne**

**Send for Illustrated Plan to**

**GEO. HIGGINS,** Auctioneer and Estate Agent, Red Hill, Victoria



# ONLY THE HARDIE




NOTE—The Dust-proof Hood of the famous Hardie Mogul 15 Sprayer adds years to the sprayer life. Beneath this hood is the greatest power plant ever put into a sprayer. Send NOW for our latest catalog Learn about the many improvements and splendid all-round construction of the world's best—

**DEPENDABLE HARDIE SPRAYERS**

## Has these Important Features

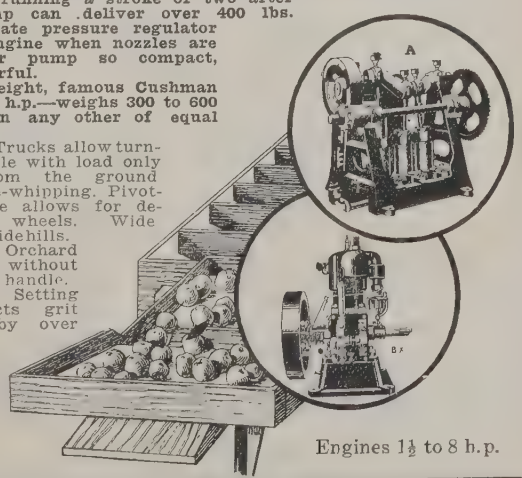
**(A) Pump Eliminating 90 Per Cent. Wear: Plungers have two soft packings to guide them; all wear comes on these; replaceable in two minutes. No crosshead or guide. Porcelain-lined cylinders. Bronze bearings. Extra heavy crank shafts. Machine-cut gears. Friction so light, pump can be turned by hand and keeps running a stroke or two after release; yet pump can deliver over 400 lbs. pressure. Accurate pressure regulator takes load off engine when nozzles are closed. No other pump so compact, durable or powerful.**

**(B) Light Weight, famous Cushman Engine 1½ to 8 h.p.—weighs 300 to 600 lbs. less than any other of equal power.**

(C) Auto-Plex Trucks allow turning in 20-ft. circle with load only 12 inches from the ground Eliminates pole-whipping. Pivoted front axle allows for depressions. Large wheels. Wide track—safe on sidehills.

(D) Hardie Orchard Gun stays set without holding control handle.

(E) Suction Setting Chamber collects grit not excluded by over head suction.




Engines 1½ to 8 h.p.

Orders indented direct from America saves the Orchardist the upkeep of the City Houses.

Write now for Catalogue to **L. E. QUARMBY**

**Economic Stores - BATLOW, N.S.W.**

### Snail and Slug Exterminator.

A new snail and slug exterminator is being placed on the market in Victoria. This takes the form of a bait, poisonous, of course, which has a fatal attraction for the slugs. In a test conducted by Mr. T. H. Grant at Beaconsfield recently a small quantity of the exterminator was placed in the garden, and as a result 265 shell back snails were killed. The dead snails were then photographed. Further tests in public gardens are being conducted, particulars of which will be published.

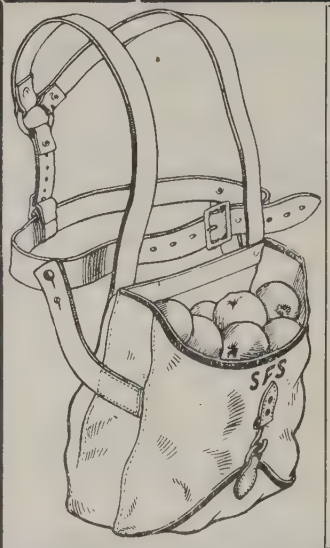
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"That's a unique-looking paper weight you have there," said Johnson, indicating a curiously shaped article lying on his friend's table.

"Yes," said the other, picking up the object in question and eyeing it critically. "You see, my daughter's just started taking cooking lessons."

---

Begin each morning by resolving to find something in the day to enjoy.


THE FRUITGROWERS' FRIEND

**S.F.S.**

**FRUIT PICKING BAG**

FULFILS A LONG-FELT WANT.

SOMETHING BETTER FOR FRUIT PICKING AT A LOW COST.

The S.F.S. Picking Bag has been specially designed to suit the special requirements of the Fruitgrower and to provide a comfortable and efficient method of picking fruit.

POSITIVELY NO BRUISING. EXTRA STRONG

PRICE 17/6 — Fruit cannot pass patent flap at bottom until catch is removed. F.O.R. BATLOW, N.S.W. — PRICE 17/6

**Sunnyside Orchards Ltd.**

BOX 32 -- BATLOW, N.S.W.

*Please mention "Fruit World."*

# Wood Wool for Fruit Packing

Made in Australia by Australians for Australian Orchardists.
Support a Local Industry and secure a Wood Wool

**EQUAL TO THE BEST IMPORTED, at a CHEAPER PRICE**

This product is good color and quality and does not taint the fruit in any way.

Packed in Bales containing about 80 lbs. . . . . Secure your supplies early to avoid disappointment.

*Prices on application to the Sole Agents for Victoria:*

POSTAL ADDRESS— **42 William St., Melbourne**

**F. CAVE & CO.** **Wholesale Fruit Merchants WESTERN MARKET**

**Better Packing MEANS Better Prices**

# The Guider Grader

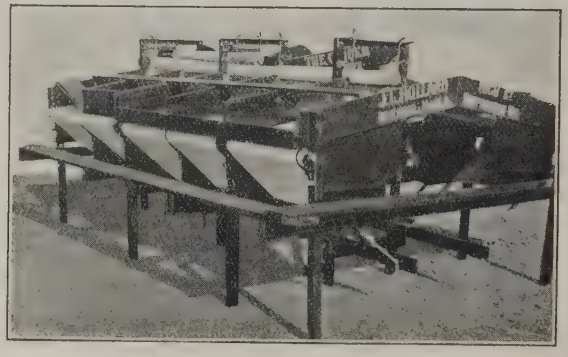
Is the Latest and Best

Purchasers write that the Machine has paid for itself in a single season

*Sole Distributing Agents:*

***Dennys, Lascelles Ltd.***

**509 Collins Street, Melbourne**



Note Spring Bottom and Canvas Bins.
Each holds two cases.

# British and Australasian Market Reports.

## Great Britain.

**London** (16/1/25).

Messrs. T. J. Poupart Ltd., Covent Garden Market, reports under date, 16/1/25, as follows:—

Apples, Bramleys, 14/- to 16/- bushel case; medium, 9/- to 12/-; Grapes, Alicante, 2/6 to 3/6 per lb.; Colman, 2/- to 4/-. There is a steady sale of best packed Apples, but little or no inquiry for second and third grades.

## Dried Fruit Prices.

**Liverpool** (1/1/25).

Messrs. J. C. Houghton & Co., Temple Court, Liverpool, report as follows:—The dominating factor that has influenced the markets during the last few months has been the development of the principle of Governmental control decided on by the Greek Legislature, when it became evident that this year's crop promised to be a record one.

The restrictions imposed had fulfilled their purpose in stabilising values with beneficial results.

The trade during November and December had been disappointing, yet quotations had kept firm owing to the strength of the Greek market.

Closing quotations were: Pyrgos, 42/-; Amalias, 43/- to 45/-; Patras and Zante, 45/- to 48/-; Gulf and Panariti, 50/- to 53/-; Vostizza, 56/- to 62/-.

The increasing quantity of dried fruits from Australia entering into competition was undoubtedly attracting some of the trade from the usual channels of previous years.

Australian Currants were disappointing in quality, and compared very badly with that of last season in colour and condition. Opening prices were 60/- to 65/-, but later arrivals were so inferior that prices gradually dropped till as low as 30/- was taken for out of condition parcels, and 40/- to 45/- for inferior grades, best lots 50/-. Australian Lexias arriving in August and later proved disappointing in quality, many parcels showing signs of age, and 28/- had to be accepted. Best Valencias in October brought up to 80/-. Australian Sultanas were very mixed in size and colour, and business was difficult to negotiate at 52/- to 60/-.

## New South Wales.

**Sydney** (24/2/25).

Mr. F. Chilton, City Fruit Markets, Sydney, reports under date 24/2/25, as follows:—

Queensland Fruits.—Bananas, 12/- to 18/- per case; Pines, smooth, 11/- to 14/-. New South Wales Fruits.—Bananas, Tweed River, 12/- to 18/- per case; Lemons, 5/- to 10/- per bushel case; Oranges, Valencia, 7/- to 14/-; Pears, W.B.C., 4/- to 8/-; China, 2/6 to 5/-; Passions, 5/- to 10/- per half-case; Peaches, 3/- to 6/-; Plums, 2/- to 5-; Tomatoes, 3/- to 7/-; Grapes, Black Hamburg, 5/- to 7/-; Black Muscat, 7/- to 10/-; Quinces, 3/- to 6/- per bushel case; Apples—Jonathan, 5/- to 8/-; Trivett, 4/- to 9/-; Gravenstein, 4/- to 7/-; Green Cooking, 3/- to 7/-. Victorian Fruits.—Apples—Gravenstein, 5/- to 8/-; Jonathan, 5/- to 8/-; cooking, 4/- to 7/-; Pears, W.B.C., 6/- to 7/6. Tasmanian Fruits.—Apples, W.P.M., 5/- to 7/- per bushel case; Alf., 4/- to 5/-; D.C., 5/- to 6/6; A.L.X., 5/- to 6/-.

There is a good demand for choice coloured eating Apples, Pears and Peaches. Cooking Apples are selling slowly, also Plums.

Pines have been arriving in more or less bad order, the trouble being due to "Water Blister."

The recent very hot weather has caused considerable damage to Bananas in transit, and soft fruits, especially Plums and Peaches, have suffered to some extent.

## Victoria.

**Melbourne** (28/2/25).

Prices ruling at Western Market were as follows:—

Apples, 3/- to 6/- per case; cooking, 2/- to 4/-; Pineapples, Queensland, 10/- to 12/-; Bananas, 10/- to 18/-; Grapes, 6/- to 10/-; Lemons, 9/- to 12/-; Passion-fruit, choice, 7/- to 9/- per ½ case; Peaches, dessert, 4/- to 6/-; Elberta and Crawford, 3/- to 4/-; Plums, 2/- to 4/-; Pears, Williams, 2/- to 4/-; Tomatoes, 5/- to 7/-.

## South Australia.

**Adelaide** (28/2/25).

Apples, eating, 6/- to 8/- per case; cooking, 5/- to 7/-; Figs, 8/-; Grapes, 7/- to 8/-; Lemons, 10/-; green, 7/-; Nectarines, 12/- to 14/- per dozen lb.; Oranges, 9/- to 10/- per case; Peaches, 6/- to 8/-; Pears, eating, 5/-; eating, ripe, 7/- to 8/-; Plums, light, 4/- to 5/-; dark, 4/- to 6/-.

## Tasmania.

**Hobart** (28/2/25).

Apples, Gravensteins, good colour, 5/- to 5/6; medium, 4/- to 4/9; small, 2/6 to 3/6; R.P., fair, 4/- to 4/6; medium and small, 2/6 to 3/8; St. Law., medium, 4/6 to 5/4; Alf., prime, 4/- to 4/4; overlarge, 3/3 to 3/9; others, ditto, 3/-; W.P.M., good coloured, 6/- to 7/-; medium, 4/4 to 5/-; pale and small, 2/6 to 3/6; P.G.N., 3/6 to 4/-; Pears, W.B.C., good, 4/- to 4/6; medium, 3/- to 3/10; small, 2/6 per case; Peaches, best, 4/3 to 6/- per ½ case; small and ripe, 1/9 to 3/9; Plums, 2/- to 5/- per case; Kentish Cherries, 2/6 half-case; Apricots, 3/- to 3/6; Raspberries, 4¾d. to 5d. lb.

## Queensland.

**Brisbane** (26/2/25).

Bananas, prime, 3d. to 4¾d.; good, 1½d. to 2d.; inferior to medium, ½d. to 1d. per doz.; Oranges, New South Wales, repacked, 16/- to 18/-; others, 12/- to 14/-; Lemons, local, scaly, 1/6 to 2/6; good quality, 5/- to 7/- per ½ bushel case; Ripley Pineapples, special, 11/-; others, 6/- to 8/6 per case; smooth, 4/- to 6/-; Passion-fruit, 4/- to 9/-; Plums, extra choice, 6/- to 8/-; others, 2/- to 3/6; Grapes, Stanthorpe, 1½d. to 5d.; others, 2d. to 6d. per lb.; Peaches, 1/- to 3/-; special, 4/-; Persimmons, 2/- to 4/- per half-bushel case; Stanthorpe Apples, Jonathans were worth from 5/- to 8/- per case, and specials were quoted at 9/-; M'Intosh, 5/- to 8/-; Delicious, 5/6 to 8/-; Scarlet Queens, 6/- to 7/-; Frampton Pippin, 8/-; G.R.A.V., 6/- to 9/-; Oskens Red, 6/- to 7/-; cookers, A.L.F., 7/- to 7/6; Five Crowns, 6/- to 8/6; Granny Smith, 8/-; Monroe's Favourite, 5/- to 7/-; poor quality Apples realised from 2/- to 4/-. Victorian Apples:—J.O.N., 9/- to 11/-; Duke, 7/- to 9/-; G.R.A.V., 7/- to 9/-; Sunnyside, 7/- to 8/-; A.L.F., 7/- to 7/6; Pears, Victorian, W.B.C., 13/- to 14/-; B.D.C., 9/- to 11/-; Gansells, 13/-.

## Western Australia.

**Perth** (17/2/25).

Apples, Jonathans, prime, to 14/3 ¾ bushel; others, to 8/-; Cleos., 5/- to 7/-; cooking, to 9/6 per bushel; Bartlett Pears, best, to 9/-; others, to 5/6; Fertility, to 3/-; Nectarines, to 10/- ½ bushel; small; to 6/-; Peaches, prime, 10/- to 14/-; others, to 7/-;


**Latham Dehydrators**

"STAND ALONE"

The "Rolls Royce" of the Artificial Drying World.

Some Installations for Foodstuffs.

| Purchaser | Principal Prods. |
|---|---|
| Merbein Dehydration Trust, Mildura | Sultanas Raisins etc. |
| Tasmanian Dehydration Pty. Ltd. Bridgewater two plants. | Apricots Prunes Apples |
| Charles Martin, Yackandandah | Prunes |
| Swallow & Ariell Ltd. Port Melbourne. | Carrots Turnips Cabbages, etc. |
| Woorinen Co-op. Pack. Shed, Woorinen | Sultanas Raisins etc. |
| Aurora Pack. Co. Pty. Ltd., Irymple. | Sultanas Raisins etc. |

**D. J. LATHAM**

**157 Queen Street,**

Melbourne, Australia.

Plums, prime Wickson, to 18/6; others to 9/-; O. Purple, to 14/6; small, to 7/-; Satsuma, 5/6 to 13/3; Pond's Seedling, to 9/6; Oranges, best, 11/- to 16/- ¾ bushel; large, to 9/-; Lemons, best, 10/- to 13/3; large, to 6/- Strawberries, 8/-; Figs, to 8/9; Passion-fruit, 5/- to 8/6; quarter-cases, 3/- to 5/6; Tomatoes, best, 8/- to 10/9; others, to 5/-.

### New Zealand.

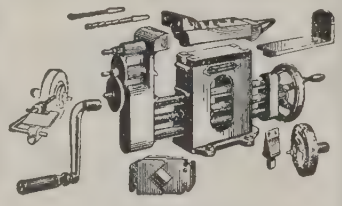
**Dunedin (13/2/25).**

Messrs. Reilly's Central Produce Mart report under date, 13/2/25, as follows:—

Pears, W.B.C., 2d. to 2½d.; Apples, new season's desserts, 3d. to 3½d; cooking, 2d. to 2½d.; Oranges, Australian Valencias, 24/-; Lemons, Australian, 26/-; N.Z., 22/-; Italian, 30/-; Bananas, ripe, 30/-; Fiji, 21/-; Rarotonga, 18/6 case; Peaches, dessert, 3d. to 5d.; cooking, 2d. to 3d.; Plums, dessert, 1¾d. to 2d.; cooking, 1d. to 1½d.; Greengages, 3d. to 4d.; Apricots, desserts, 4d. to 6d.; cooking, 2d. to 3d.; Nectarines, 2d. to 3½d.; Raspberries, 6½d. to 9d.; Grapes, Oamarus, 1/6½; locals, 1/8; Tomatoes, locals, 7½d. to 9½d.; Christchurch, 2d. to 3d. to 4¾d.; Otago Central, 4d.; seconds, 1¾d. to 2d.; Nelsons, 3d.


HERE IT IS!

*Just what YOU need for the orchard*



The famous

STEWART

"HANDY WORKER"

A strong compact combination of six most useful tools. Vyce, pipe vyce, anvil, cutting hardie, drilling jig with two drills, and carborundum grinding wheel.

**It pays for itself fifty times over**

**Price, complete, £5/15 F.O.R.**

*LET US TELL YOU ALL ABOUT IT*

COOPER ENGINEERING Co. Ltd.

350 Spencer Street, Melbourne
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**The Value of Gypsum.**—The use of gypsum as a soil corrective, neutralising mineral poisons, adding sulphur and lime, releasing ammonia and potash, breaking up heavy soils and binding together sandy soils, is not as well known as it should be. The Victorian State Rivers and Water Supply Commission has found gypsum so beneficial that last season they distributed quite a large quantity of Boort gypsum in the Shepparton district; the Department of Agriculture also had most successful results with their experiments on poor, heavy land in the Western District for growing wheat, by heavy application of the same gypsum.

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people have who suffer from Rheumatism or Neuritis is in preventing a return of the attack. It comes back year after year despite all the rubbing and ordinary treatment they undergo. This is because they do not drive the dregs of the complaint, which is a poisonous acid in the blood, from the system. No amount of rubbing will do that, the trouble is in the blood. A treatment for Rheumatism or Neuritis that aims at driving out of the system, the cause of the complaint is certainly commonsense. People who have used A.M.S. —a blood purifying medicine—acting through the Stomach, Liver and Bowels—finds that its action not only eliminates the cause of Rheumatism and Neuritis from the system, but fortifies it against future attacks. Therefore, try A.M.S. It is the medicine which makes you feel strong and well. Sold by all chemists and country storekeepers, at 3/-, by post 3/6. Manufactured by T. A. Dickson, Chemist, Geelong, Vic.

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"FRUIT WORLD OF AUSTRALASIA."

Representing the Deciduous, Citrus and Dried Fruits Industry of Australasia.

Published the First of each Month.

**Editorial and Management Notices.**

**Articles and Photographs.**—The Editor will always be very pleased to receive articles and photographs for publication. Articles on spraying, pruning, drainage, marketing, and other cultural matters, and reports of meetings, are welcomed. Please write on one side of paper only; include name and address (not necessarily for publication). Press matter sent in an open envelope, marked "Printer's MSS.," postage rate: 2 ozs., 1½d. Photographs, if sent in an open-ended package, marked "Photos. only," will travel at 2 ozs., 1½d. A short description of the photos. should be written on the back.

We do not hold ourselves responsible for the views expressed by our correspondents.

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The annual subscription, post free within Australia and New Zealand, is 8/6. All other places, 10/6, post free. New subscriptions can commence at any date. Subscribers should notify us immediately of any change of address.

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Changes of copy for advertisements must be in our hands on or before the 17th of the month prior to publication.

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"The Fruit World" Offices (where copies and full particulars are obtainable) are as follows:—

**Victoria** (Head Office): 9 Queen Street, Melbourne. **New South Wales:** Carruthers, Farrum & Co., 77 King Street, Sydney. **South Australia:** W. F. McConnell, Grenfell Buildings, Grenfell Street, Adelaide. **Tasmania:** Saunders & Co., Murray Street, Hobart. **Western Australia:** D. L. Hetherington, Colonial Mutual Buildings, St. George's Terrace, Perth. **Queensland:** Gordon & Gotch Ltd., Queen Street, Brisbane. **New Zealand:** Gordon & Gotch Ltd., Wellington, Dunedin and Auckland. **Great Britain:** Harvey H. Mason, 1 Mitre Court, Fleet Street, London, E.C., England.

R. E. BOARDMAN, A.F.I.A., Managing Director and Editor.

E. H. WRAGG, Secretary and Advertising Manager.

**Tasmanian Director:** HON. L. M. SHOOBRIDGE, M.L.C.

## THE VALUE OF FRUIT.

### Nutritive and Medicinal Properties.

An eminent authority says: "If you want to live long, retain your youth, and increase your brain tissues, eat plenty of Apples. They are rich in phosphates. Phosphoric acid is probably the nearest approach to the 'elixir of life' known to the scientific world." Ripe, raw Apples contain more phosphates in proportion to their bulk than any article of food, fish not excepted. They are also a sedative, and when eaten in the evening have a tendency to induce sleep. The Apple-eater's brain is clearer and his nerves steadier than the beef-eater's.

A physician of many years' experience and observation recommends plenty of fresh, ripe Peaches. He explains that they act directly upon the liver and kidneys, carrying off dangerous secretions by exciting these organs gently to the discharge of their proper functions. They cool the blood and nourish the whole system.

The Grape is another nutritious food. Its digestibility and value can be estimated by the fact that physicians order unfermented Grape juices in cases of typhoid fever. It is a common occurrence to see farmers' wives who are "tired out" and "run down" by the hard work of the summer, regain their vigour when the Grapes are ripe. "Wait till the Grapes ripen," as one farmer's wife replied, "and I will be myself again." She knew by experience that the Grapes were her cure. We read about the "Grape-cure" in some European countries. In some parts of Germany, France, and Switzerland, schools used to be dismissed for ten days or a fortnight, and the larger part of the population lived in the vineyards. They ate all the Grapes they could devour, the only accompaniment being bread. This diet for a few weeks would surely do the average family good. Good wholemeal or brown bread, with butter and Grapes, would supply all the needs of the body.

Fruit cooked wholly without sugar, and sweetened while hot, makes a very palatable dessert. Fruit desserts are more economical than pies and puddings, even without taking doctors' bills and drugs into account.

## WHY WORRY ABOUT ROOTSTOCKS?

DURING the past few years a great deal has been written on the subject of rootstocks for deciduous fruit trees. Recommendations have been made giving the adaptations of the various rootstocks to environmental conditions, and the affinity between certain varieties of fruit and the stock, writes Mr. M. J. Heppner, Pomologist, University of California. Most growers have taken it for granted that all that will ever be known relative to rootstocks is the information now at hand. Hence they say, "Why worry about rootstocks?"

The truth of the matter is, that there is a great deal to worry about. Our knowledge of the past relative to rootstocks must be discarded owing to the many interesting and almost unbelievable findings of the past few years.

For a long time it was claimed that the rootstock of a fruit tree had little to do, if anything, with the period of ripening of the fruit. However, cases have recently come up showing that this statement is untrue. Also, while it was once believed that there was a distinct affinity between certain varieties and certain rootstocks, cases have arisen showing no affinity under different conditions. Also, our old reliable rootstocks are not giving the desired results in many cases, and hence new rootstocks must be given a trial. Thus, it can be seen that there is a great deal of worrying to do about our rootstocks.

In order to clear up these many complications which are arising from time to time, extensive experiments dealing with rootstocks are being conducted. Most of the commercial varieties of fruit are being propagated on different stocks, both old and new. Also, different species of untried trees are being utilised in order to ascertain their value, if any, for rootstock purposes.

## SOUTH SEAS EXHIBITION.

Great interest is being manifested in the New Zealand and South Seas International Exhibition, to be held in Dunedin from November, 1925, till April, 1926. This is the fourth International Exhibition to be held in New Zealand, and invitation has been given to all the nations of the earth to join in this effort to assemble in Dunedin evidences of the world's accomplishment up to 1925. It will be an exhibition of quality, summarising man's achievement, portraying the development of Art, Science, Invention, Industry, Commerce, Agriculture, Transportation, Aircraft, Education, Sanitation and Health Promotion; covering every form of progress from pioneer days to the present time.

Exhibit buildings will be ready for receiving goods on the 1st September, 1925, but arrangements can be made for taking care of exhibits before that date. Applications for space may be lodged with the Federation of British Industries, 39 St. James-street, London, S.W.1.; the N.Z. Trade Commissioner, Dominion Chambers, 59 William-street, Melbourne; the N.Z. Government Agent, London Bank Chambers, corner Pitt and Moore streets, Sydney, or the Secretary, N.Z. and South Seas Exhibition Co. Ltd., Dunedin, New Zealand.

# Scientific Research into Fruit Problems.

## Cold Storage and Transportation of Apples.

### Visiting Cambridge Scientist Studying Bitter Pit.

MENTION has frequently been made in these columns of the valuable work which is being done by the British Department of Scientific and Industrial Research in investigating the causes of damage and loss in Australian Apple shipments to England. There has just come to hand a report from the Food Investigation Board of this Department, which should be of the greatest interest to all in the fruit industry. Entitled, "The Problems of Apple Transport Overseas," it deals in a general and non-technical way with the results obtained by the scientists from Cambridge, who visited this country in 1923, in order to study in particular the cause of brown heart in Apple shipments. The members of this expedition were Dr. Ezer Griffiths, Mr. A. J. Smith, M.A., and Mr. E. A. Griffiths, while the organisation and general supervision of the work was in the hands of Dr. Franklin Kidd, whose name the present report bears.

The report deals briefly with brown heart, and states emphatically that the evidence obtained by the expedition indicates that brown heart is developed on board ship, that the conditions which give rise to it are those of insufficient ventilation of the hold, and that such conditions can now be guarded against, and all danger of the disease occurring eliminated. **Thus in its main object the expedition was completely successful.**

The ventilation of ships' holds is then discussed from a more general standpoint, and it is pointed out that there is no advantage to be gained by excessive ventilation, and in fact that such practice is often undesirable.

**Small amounts of the carbon dioxide gas produced by the fruit are found to exert a beneficial effect** in preserving the fruit, and it is only above the limit of about ten per cent. that there is any danger of brown heart.

It is suggested, therefore, that **ventilation should be limited** rather than indiscriminate, and that instruments should be installed on the ships to indicate the percentage of carbon dioxide present in the holds, in order that the desired percentage may be maintained and not exceeded.

One of the most puzzling problems confronting the investigators was that in certain instances cargoes of fruit had undoubtedly been carried to England safely without any deliberate ventilation. The explanation of this lies in one of the most interesting discoveries made by the expedition, viz., that in all holds there is a considerable accidental leakage of gas.

The amount of leakage varies from ship to ship, and also changes with the conditions at sea, being much greater in rough than in calm weather. In certain cases the leakage is sufficient to give all the ventilation that is required; in other cases, it is insufficient, and then disaster follows, unless definite provision for ventilation is made.

Passing on to the **question of temperature,** it is recommended that the fruit shall be cooled as rapidly as possible, and maintained at a temperature of from 32 to 34 degrees.

The investigations have shown that on board ship great difficulties have to be overcome in order to obtain even a fair approximation to these desired conditions. In large holds none of the systems of refrigeration in use succeed in attaining a quick reduction of the temperature, or a uniform temperature throughout the cargo. Experiments are being continued, both on a large scale and with models, to improve the present conditions.

In conclusion, the need for a **continuance of the investigations** is emphasised, and suggestions are made regarding the lines such work should follow. Since the publication of this report, these suggestions have materialised to the extent that a new investigation is in progress in the charge of Mr. A. J. Smith, who is at present working in this country.

The report, which is illustrated with diagrams and photographs, is published by H.M. Stationery Office in London, as Special Report No. 20 of the Food Investigation Board. Further reports dealing in more detail with the date of the expedition are promised.

* * *

### Mr. Smith Meets Fruitgrowers' Cool Stores Association.

Mr. A. J. Smith, M.A., Cold Storage Scientist attached to the Cambridge Low Temperature Station, addressed a meeting of the Fruitgrowers' Cool Stores Association of Victoria on the 19th March. Mr. R. M. Finlay, of Diamond Creek, took the chair, in the presence of a good attendance of members. Mr. Smith was warmly welcomed by the President.



*MR. A. J. SMITH, M.A.*

Mr. Smith described the work on Apples that had been accomplished in the last four years by the staff at Cambridge regarding the chemical composition, the texture, the respiration, and the keeping qualities of the different varieties of English Apples. The effects of soil and the degree of maturity of the fruit at the time of picking had been carefully investigated, and these were found to have a marked influence on the life of the fruit in storage.

Mr. Smith then outlined experiments which had been made on the "gas" storage of Apples, which experiments had ultimately led to the solution of the "brown heart" problem. It was found that a certain percentage of carbonic acid gas in the atmosphere was helpful, and increased the life of the fruit in storage, but beyond a limit which had been fixed at about 10 per cent., the disease of brown heart was liable to develop. These experiments were performed in 1920—two years before brown heart became of serious importance commercially. When the disease appeared in Australian shipments, the workers at Cambridge at once suggested that it had been produced in the same way as in these experiments, that is to say, by the accumulation of carbonic acid gas as the result of inadequate ventilation while the Apples were being carried in the ship.

At the invitation of the interests concerned, an expedition of three scientists from the Cambridge Station (Dr. Ezer Griffiths, Mr. A. J. Smith and Mr. E. A. Griffiths) came out to Australia in the ensuing season (1923) and the result of their investigations was to confirm completely this hypothesis. Their conclusions were communicated to the trade, with the result that provision has now been made for ventilating the holds on all boats carrying fruit from Australia. As a result of these precautions, it is anticipated that the disease of brown heart will be completely eradicated in future seasons.

The importance of this result may be realised when it is mentioned that in one season alone the losses due to brown heart have been estimated as in the neighbourhood of £200,000.

The speaker went on to describe the work that had been carried out with regard to the measuring of temperatures in the ships' holds, and to the devising of means whereby a more rapid cooling of the fruit could be effected and a more uniform temperature maintained in the hold. The results showed that at the present time very large temperature differences might exist at different points in one and the same hold, so that in one part of the chamber the fruit might be in danger of freezing, whilst in another part it was ripening at a dangerously rapid rate.

As a result of the observations which had been made on the temperatures and the movement of air in the holds of ships, the scientists had been able to suggest modifications in the present methods of refrigeration and stowage, which, in their opinion, would lead to much better results in the way of temperature control.

Work was also being done which aimed at the designing of instruments, suitable for use on board ship, for determining the temperatures and the amount of carbon dioxide in the holds. Most of the types of instruments at present available had proved unsatisfactory for use at sea, and new designs were now being tested out.

It could be predicted with some confidence that a reliable form of distant reading electrical thermometer would shortly be available for this work. With such instruments installed on the ship, it would be a much simpler matter for the engineer to control the temperatures in his hold, and to secure better results in the carriage of fruit under his charge.

**Bitter Pit Investigation.**

In addition to carrying on the work along these lines, Mr. Smith explained that fresh ground was being broken this season in beginning an investigation of the disease of "Bitter Pit." The time available in Australia was too short for a complete study of this very complicated and insidious disease, and the investigations were being confined to the question of the development of Bitter Pit after the fruit had been gathered from the tree. It was well known that every year large quantities of fruit exported from Australia apparently in a sound condition arrived in England badly affected with Bitter Pit. It was not known how or when this disease became evident, or whether by any means its development could be held up and the fruit marketed while still in sound condition.

**The results so far obtained indicated that at lower temperatures the development of the pit was checked, and that if the fruit could be cooled rapidly after being picked, the spread of pit would be retarded.**

It remained to be seen whether or not the pit would develop rapidly when such fruit came out of the store, or whether it could be marketed before such development took place.

Mr. Smith emphasised the necessity for a continuance of this work on Bitter Pit over several seasons, and also for the extension of scientific research into other fields besides that of Apple storage; as, for instance, the storage and transport of citrus fruits, Grapes, and perhaps Peaches.

* * *

In reply to a question as to what information was available regarding the

**storage of citrus fruits,**

Mr. Smith stated that investigations made in South Africa indicated that the most important point was to ensure that the fruit was perfectly free from skin blemish at the time of storage, otherwise moulds would rapidly develop. Further, if the storage temperature were too low (say, 30 deg. to 35 deg.) the skin became brown in patches, and mould development rapidly followed when the fruit was removed from the store. The best temperature in South Africa had been found to be about 40 deg.

Several questions were addressed to the speaker regarding the

**occurrence of scald**

in cold stored Apples, especially Jonathans. In reply, Mr. Smith pointed out that there were two types of scald, which were frequently confused—superficial scald (which only affected the skin), and the so-called deep scald, or soft scald, which affected also the underlying tissues. The first type of scald was satisfactorily controlled by the use of oiled wrappers, but it was doubtful whether these had any considerable effect in checking the deep scald which was especially characteristic of the Jonathan Apple. The more immature the Apple at the time of storage, the greater the susceptibility to scald. It was to recommended that Apples which for any reason had to be picked at an immature stage, should be kept at ordinary temperatures for a few days before being placed in the cold store.

Questions were also asked by several growers, relating to stowage of fruit in cold stores. Mr. Smith stated that the question of the best method of stowage had been carefully studied both on a large scale, and also by means of small models, in which the air movement among the cases could actually be watched and studied experimentally. It had been found that in large chambers like ships' holds, **vertical spaces were more effective than horizontal spaces** in securing a good air movement among the boxes. In land stores, where more space was available, the question of stowage was of somewhat less importance, but wherever possible, a space of at least half an inch should be left between the cases. This could be secured either by means of cleats nailed on the boxes, or more simply by staggering the cases.

Ventilation was much more necessary to the fruit while it was warm than after it had been cooled down, and the stowage in the pre-cooling chamber should therefore be more open than in the store itself.

Other points raised, and dealt with, by Mr. Smith related to the effect of wrappers on the keeping qualities of Apples, the storage of Peaches, and the disease of brown rot in Peaches.

In conclusion, a resolution was passed by the meeting as follows:—

**"That this meeting, recognising the urgent need for investigational work into fruit transport problems, requests the Federal Ministry to appoint trained scientists to carry out research work in regard to cold storage and the transport of fruits."**

The meeting concluded with a vote of thanks to the speaker.

---

**Exporters Welcome Scientist.**

The Victorian Fruit Exporters' Handling Committee gave a complimentary dinner to the visiting Cambridge Scientist, Mr. A. J. Smith, M.A., on March 19th at the Commercial Travellers' Club.

The guests included Mr. A. Anderson, Jr., Director of the Orient Line of Steamers, Mr. Arnold Johnson (Victorian Manager of that Company), Mr. J. F. Kruger (White & Son Ltd., Hull), and Mr. R. E. Boardman (Editor, "Fruit World").

Mr. C. J. Parnham presided. Cambridge colors predominated in the table decorations, which were tastefully arranged.

In proposing the health of Mr. Smith, the Chairman referred to the excellent results which had been achieved in the prevention of brown heart, largely as a result of the work of Mr. Smith and the other members of the delegation which recently visited Australia.

Mr. Smith, in responding, thanked the members of the fruit exporters' handling committee for affording him the opportunity of meeting them. In a discussion which was listened to by the audience with the greatest interest, Mr. Smith outlined the conclusions which had so far been arrived at as a result of his studies into the Bitter Pit problem, and offered suggestions of a practical nature, which were much appreciated.

Mr. J. B. Mills, in proposing the toast of the shipping and merchant interests, pointed out the happy combination represented in the gathering that evening—the scientific side, in the guest of the evening; the shipping interests, in Mr. A. Anderson and Mr. Arnold Johnson—the former being a junior Director of the Orient line of steamers; the merchant interests, in Mr. J. F. Kruger, of White and Son,

of Hull, London, and the export merchants as hosts.

In responding, Mr. Anderson said that he had been most impressed with the remarks of Mr. Smith, and thanked the Fruit Exporters' Handling Committee for the opportunity of being present, and assured the gathering that any practical suggestion for the carriage of fruit that could be put forward would be sure to receive the most serious consideration of the Company. Mr. Arnold Johnson and Mr. J. F. Kruger also spoke in appreciative terms, and a pleasant and instructive function was brought to a close.

### Mr. A. J. SMITH, M.A.,

In his student days, Mr. A. J. Smith, M.A., obtained a "double-first" in the Natural Sciences Tripos (the Cambridge honours degree examination), and was subsequently elected for two years to the Frank Smart Studentship for research in plant physiology. He then became associated with the Low Temperature Research Station at Cambridge, where scientific work on the storage of fruit was already in progress under Drs. Kidd and West.

In 1923 he visited Australia as a member of the expedition sent out from Cambridge to study the disease of brown heart and related problems; and in this expedition he was solely responsible for the biological and physiological work. He returned to England on the s.s. "Somerset" with a cargo of Apples, making observations on the temperature and the gas content of the holds.

Mr. Smith has since been engaged in similar investigations in fruit stores in England, and in the examination of Australian fruit shipments on their arrival at the other side.

On returning to Australia Mr. Smith is continuing the work begun in 1923, and has initiated investigations into the development of Bitter Pit in Apples during shipment.

## Personal.

Mr. E. J. Mulvaney, Chief Clerk of the Commerce Branch of the Department of Trade and Customs, has been appointed Director of the newly created Department of Markets, of which Senator Wilson is the Ministerial head.

Mr. W. N. Twiss, who has been appointed to the Secretaryship of the S. Australian Board, was, prior to his appointment, the Secretary of the S.A. Dried Fruits Traders' Association.

## Black Spot Control.

### Tasmanian Demonstration Plots.

### Valuable Tests by Department of Agriculture.

OWING to the severe visitation of Black Spot, which was experienced amongst orchards last season, and realising that in many cases fruitgrowers were not fully informed with the best means of control, the Fruit Division of the Tasmanian Department of Agriculture arranged for spraying demonstrations amongst the various districts, the work being under the supervision of the Fruit Expert, Mr. P. H. Thomas.

In order to demonstrate the importance of the different periods of application, an arrangement was made whereby areas of orchard were taken over, and the different sprays were mixed under supervision, and applied at fixed intervals:—

**Mr. A. J. Harvey's Orchard, Cygnet.**

Plot A.—"Autumn" application of Bordeaux (16-4-40) plus a "pink" application Bordeaux (4-4-40).

Plot B.—"Delayed dormant" application of Bordeaux (6-4-40) plus "pink" application of Bordeaux (4-4-40).

Plot C.—"Pink" application of Bordeaux (4-4-40).

Plot D.—"Pink" application of Bordeaux (4-4-40) plus "calyx" application Bordeaux (2-2-40).

Plot E.—Lime-Sulphur, copper sulphate combination. 2 galls. of Lime-Sulphur, 2 lbs. Copper Sulphate to 60 galls. of water, applied at "pink" stage.

Plot F.—Check rows untreated.

Plot G.—"Pink" application of Lime-Sulphur (1-35) plus "calyx" application (1-60).

Plot H.—"Pink" application of Lime-Sulphur (1-35).

Plot I.—"Delayed dormant" application of Lime-Sulphur (1-15) plus "pink" application (1-35).

Plot J.—"Autumn" application of Lime-Sulphur (1-15) plus "pink" application (1-35).

The dates of the different periods of application were as follows:—
"Autumn," May 14th.
"Delayed dormant," September 10th.
"Pink," October 6th.
"Calyx," November 10th.

These sprays were confined to a block of about five acres of the variety "Cleopatra" of the same age, and with practically no variation in soil or conditions.

In 1923-24 the area was much affected with Black Spot, having very little fruit, and practically no foliage, being also much affected with powdery mildew (Podosphaera oxyacanthæ). In addition to the detailed sprays, the whole area was treated with an Iron Sulphide spray in the autumn, and again subsequent to the "calyx" stage.

An examination of these plots clearly demonstrates the values of the different spray periods of application. In the first place **the Bordeaux sections show out as giving the greater fungicidal control of the disease.**

Plot B, which received an application of Bordeaux at the "delayed dormant" stage (6-4-40) and another at the "pink" stage (4-4-40) stands out on its own as having the healthiest and cleanest foliage; the fruit is more forward and the infection from Black Spot is reduced to a minimum.

When this is contrasted with the other sections, especially the check rows which were untreated, the

**value of efficient spraying**

is apparent, especially in the application of a strong early spray at the commencement of growth, so as to prevent the fungus spores from making lodgment.

Plot A does not show any appreciable advantage from the application of a spray the preceding autumn, although it is generally better than "C" and "D," in which the earlier sprays were omitted.

Plot E, which received a combination spray of Copper Sulphate and Lime-Sulphur, because of the good results which were ascribed to the use of this mixture with one application last season, shows up very poorly, so also do the whole of the Lime-Sulphur plots. The results obtained in this demonstration are supplemented and confirmed in a number of orchards throughout the State in which the owners have followed the departmental recommendations as they appeared in the press, or in which the officers have devoted their personal supervision.

When the picking is completed and percentages taken of the clean and infected Apples, a detailed report will be published.

### FRUITGROWERS SHOULD ORGANISE.

Mr. John Davis, of Drysdale, Vic., writes,—

The "Fruit World is a good help to growers of fruit for export (but I am not one), being only in a small way interested, chiefly in Apricots and in a district of small fruit growers.

What I think would be of value to us would be a Fruitgrowers' Association that would agitate politically to see justice done so that all could benefit, and not be exploited as we are at present,—only the best of our crops bought and jam fruits allowed to rot. The small man cannot help himself so I think a Fruitgrowers' Association worthy of the name should launch out with a vigorous policy and get the State Government to bestir itself and yield some justice to the growers of fruit.

If action is not taken soon it will lead to the destruction of many orchards, as the land would be more valuable for almost any crop.



# THE "Sunraysed" Courier



**FEDERATED DRIED FRUITS EXPORT CONTROL BOARD.**

**Commercial Representatives:**
A. F. Bell, E. S. Whitehead.
**Government Nominee:**
W. C. Thomas (Chairman).
**Growers' Representatives:**
J. J. S. Scouler, Red Cliffs, Vic.
H. D. Howie, Renmark, S. Aust.
A. L. Johnston, Mildura, Vic.
A. Yeates, Millendon, W.A.
Acting Secretary—E. J. Mulvaney.

**VICTORIAN DRIED FRUITS BOARD.**

**Commercial Representative:**
J. M. Balfour (Chairman).
**Government Nominee:**
E. Meeking.
**Growers' Representatives:**
Jas. Milne, Red Cliffs.
E. T. Henderson, Mildura.
A. Lochhead, Irymple.
Acting Secretary—J. M. Allen.

**SOUTH AUSTRALIAN DRIED FRUITS BOARD.**

**Commercial Representative:**
L. N. Salter (Chairman).
**Government Nominee:**
G. A. W. Pope.
**Growers' Representatives:**
H. D. Howie, Renmark.
H. G. Evans, Renmark.
H. Kay, McLaren Vale.
**Secretary:**
W. N. Twiss.

**AUSTRALIAN DRIED FRUITS ASSOCIATION.**

**Board of Management.**
H. D. Howie, Renmark.
T. C. Rawlings, Mildura.
J. B. Murdoch, Waikerie.
J. Gent, Nyah.
G. Kitchen-Kerr, Red Cliffs.
Australian General Secretary—W. N. Sumner.
South Australian Secretary — Stan. Oldham.
**London Manager:** W. P. Caro.

## "GOOD-BYE, AND GOOD LUCK."

Our London manager, Mr. W. P. Caro, sailed for London on the "Aorangi." He travels via Canada and California, and will catch the "Mauretania" at New York.

Interviewed on the eve of his departure, he was, as usual, optimistic about the future, and the payable prices that are possible with well dried fruit of good color, attractively packed.

"The visit I intend paying to Fresno," he said, "will be of inestimable value to me in London. In handling brokers and buyers generally, a first hand knowledge of the methods of our competitors in California is often very useful. On a number of occasions last season I felt that a wider knowledge of the industry in other countries was essential, and so determined that if possible I would make this trip. Although it will be a short one, it will be concentrated.

"Business houses in Canada (from which we have received enquiries) and New York, will also be called on and the possibilities of marketing some of our high grade parcels ascertained.

"I feel that I shall be arriving in London this time with the knowledge I shall gain even better equipped to give the growers the service they need.

The preparations that are in train for a big publicity effort, co-ordinating the work in the three most vital mediums at present available—Wembley, trade displays and the newspapers—should satisfy growers that this year more than ever before will we make every post a winning post. We know it is the fervent wish of every grower that success, or for this year, at any rate, unmistakable signs of it, will attend these efforts to rehabilitate ourselves on the London market. Every grower can help, publicity is useless and a vain thing if the quality of our fruit or the standard of its packing and presentation, is not the best that is humanly possible."

## OUR LONDON LETTER.

**Australia House.**

An "Empire Week" is to be held in London from May 24th to 31st. The date is a most opportune one, and fits in splendidly with the arrival of our new season's fruit. A scheme is being prepared for effective displays of our "Sun-Raysed" brand by London grocers, who are already giving us very valuable assistance.

Steps have been taken to reserve Peaches, Nectarines, Pears, and Apricots in sufficient quantity to make a worthy show in the early part of the exhibition at Wembley.

It is hoped that you will be able to forward some good quality fruit in time for the opening, which is provisionally fixed for May 1st.

With reference to the lantern lectures: The organiser of the Institute of Certificated Grocers is very interested in our "Sun-Raysed" fruit. As this organisation is most progressive, and should be able to help us, they have been loaned a full set of our coloured slides, 40 altogether, depicting every phase of the industry. These are in the form of a lecture on the growing, drying, etc., of the fruit, and as the organiser will be using it for a three months' lecturing tour amongst grocers, much good will result.

## OUR "TONIC FRUIT" IN CHINA.

Considerable quantities of our sunraysed fruits have found a good market in China. Certain of our agents sent parcels, which met with a most favorable reception.

The markets in the East are possible of considerable development, and the Californians are already on the spot exploiting them with their usual vigor, their cartons being printed in Chinese characters.

Our course should be quite clear. The trial shipment should be followed up, and good business will undoubtedly result.

Very rapidly the Chinese are developing a taste for the foods of the Occident: our Sultanas have been dubbed "the tonic fruit," consequent on the discovery of their, to us, well-known nutritive and health giving properties.

The Chinese are in the habit of taking Sultanas to the sick in the hospitals, and it is one of the highest forms of compliment in China—that of the giving of the choicest tit-bits of food to friends.

This national custom, and the awakening taste for our dried fruits presents an opportunity that it would be folly to ignore.

Cartons of all sizes would make the fruit accessible to all classes of Chinese.

The addition of Raisins or Sultanas to a bowl of rice makes a perfectly balanced dietetic delicacy—our friends in China could hardly say "me no savee" to a suggestion like that!

**Our Wembley Exhibit.**—The Association, in pursuance of a definite policy of publicity, where the bulk of our fruit is sold, is making the most of the wonderful opportunity that presents itself at Wembley.

During the month we have shipped a big parcel of Currants and Sultanas for exhibition purposes, and with the experience gained last year an even better display will be presented on this occasion.

Sales kiosks, dioramas, and demonstrations will be the principal features.

The total number of cartons sold at Wembley last year is given here, and indicates the possibilities in this direction:—

Currants.—3d., 19,800; 6d., 8,900; 1/-, 2,600.

Sultanas.—3d., 194,850; 6d., 80,300; 1/-, 8,000.

Raisins.—3d., 89,950; 6d., 28,250.

Stone Fruits. — Peaches, 8,075; Prunes, 3,100; Pears, 2,200; Nectarines, 2,900.

**Cartons on London Market.**—Recently the Board of Management discussed with Mr. Caro the possibilities of doing good business with cartonned fruit on the London market.

In view of the necessity of keeping the Association's "Sun-Raysed" brand constantly before the public now that it had made its debut at the last exhibition, it was decided that all arrangements should be made to put our fruit on the market in cartons.

**Apricots for Export.**—The Association has declared 25 per cent. as export quota for this fruit. This decision was forced upon the Association, as there is a comparatively large tonnage of "outside" fruit on the market.

The action on the part of a number of growers of selling "outside" may be the deciding factor when the question of the control of stone fruits by the State Boards is reviewed in the light of next year's operations.

## VICTORIAN DRIED FRUITS BOARD.

### Business Men Appointed.

### No Prices Fixed.

Mr. J. M. Balfour, who has been appointed to the Chairmanship of the Victorian Board, is a city business man. He was for some time the Secretary of Bawra and the Central Wool Committee. Several years ago he was a member of the board of directors of the A.N.A., and a prominent figure at Annual Conferences.

The Government nominee, Mr. E. Meeking, is the senior Fruit Inspector for the Agricultural Department. A number of meetings have been held, and the A.D.F.A. Board has given valuable assistance.

## CONTROL BOARD.

### Many Meetings Held.

The Export Control Board met many times, and a tremendous amount of work was done. Mr. W. C. Thomas was elected Chairman. The Board decided to impose the full amount provided for under the Act, one-eighth of a penny per pound, the resultant revenue to cover cost of administration and an extensive advertising campaign in Great Britain, Canada and other countries likely to provide a market for Australian dried fruits.

Consideration was given to the establishment of a London selling agency.

Many licenses were issued, and this will enable the new season's fruit to be despatched without delay.

Minimum prices were fixed by the Board for South Africa, New Zealand and the East, and Mr. E. J. Mulvaney, Acting-Secretary of the Dried Fruits Export Control Board, has announced that, in connection with the issue of licenses for the exportation of dried fruits, the Board has decided that the prices at which the fruits are sold shall not be less than the following:—

**South Africa.**

Currants, 3-crown, 53/- per cwt., c.i.f. South African ports; 2-crown, 49/- per cwt., c.i.f. South African ports.

**New Zealand.**

Currants, 3-crown, 6¼d. per lb.; 2-crown, 5d. per lb.

Sultanas, 3-crown, 6d. per lb.; 2-crown, 5¼d. per lb.

These prices are f.o.b., less 3 per cent. demand draft.

**The East.**

Currants, in 56lb. boxes, 3-crown, 5¼d. per lb.; ditto, 2-crown, 5¼d. per lb.; in 56lb. boxes, tin-lined, 3-crown, 6⅞d. per lb.; ditto, 2-crown, 6⅝d. per lb.; in 10lb. tins, 3-crown, 7⅛d. per lb.;; ditto, 2-crown, 7⅛d. per lb.

Sultanas, in 56lb. boxes, 3-crown, 6⅜d. per lb.; 2-crown, 6⅛d. per lb.; in 56lb. boxes, tin-lined, 3-crown, 7⅞d. per lb.; ditto, 2-crown, 7⅛d. per lb.; in 10lb. tins, 3-crown, 8⅜d. per lb.; ditto, 2-crown, 8⅛d. per lb.

These prices are f.o.b., less 5 per cent. demand draft.

**Three Boards will Work Together.**—Members of the Fruit Board of South Australia were welcomed by the Chairman (Mr. Thomas).

The powers of the Federal and State Boards were explained, and the question of co-operation in the sale of dried fruits within the Commonwealth and overseas considered. It was decided that the three Boards would work together as far as their constitutions permitted.

It was also decided to approach the Minister for Markets (Mr. Wilson) to have the sale of dried fruits at Wembley under the control of representatives of the A.D.F.A.

**London Stocks.**—The latest advices from London show that the stocks of old season's fruit are very low. It is now practically certain that all our old season's fruit will be cleaned up before the arrival of the first shipment of the new season.

## STANDARD SAMPLES DETERMINED.

### Annual Meeting at Mildura.

Following the usual annual custom, a large and representative body of men (which included Mr. J. M. Balfour, Chairman of the State Board) interested in Australian dried fruits met at the main shed of the Mildura Co-op. Packing Co. to fix the grade of Sultanas and Currants for the coming season. By ballot a committee of five was chosen. It consisted of Messrs. H. Noel (Commonwealth), E. Meeking (Victoria), G. Quinn (South Australia), Lucas (South Australia), P. Malloch and A. Stephenson (Victoria). Mr. Cuttle, the well-known South Australian grading expert was appointed arbitrator, as usual.

Some ninety samples of Sultanas were on the tables and a good number of samples of Currants. The fruit was from all parts of the Mildura district, Curlwaa, Renmark, Nyah, Woorinen and Tongala, and the samples of Sultanas, cold and hot dipped, were greatly varied in shade and quality. The whole of the exhibit of Sultanas was perhaps the most educative and impressive ever shown at an annual grade fixing. Some beautiful fruit was to be seen, strongly evidencing the desire of the growers to produce what will satisfy the commercial demand.

Grades having been fixed, the representatives dispersed, but before they did so a special official notice was given for publication as follows:—"Fruit possessing strong odor of oil will be rejected at the shed door."

Beyond the terse official order, it was left to the press to warn growers that have oily fruit to wash it before attempting delivery at the sheds, and at the same time a hint may be passed that all green fruit will be rejected.

## NEW SEASON'S PEARS.

### Table Showing Prices Fixed by the Board.

The A.D.F.A. Board of Management have fixed prices for new season's Pears as follows:—

| | | 10 Tons. | 100 Boxes. | One Box. |
|---|---|---|---|---|
| 28lb. boxes | 4-cr. | 1/2 | 1/2½ | 1/3 |
| | 3-cr. | 1/0½ | 1/1 | 1/1½ |
| | 2-cr. | 11½d. | 1/- | 1/0½ |
| 14lb. boxes | 4-cr. | 1/2½ | 1/3 | 1/3½ |
| | 3-cr. | 1/1 | 1/1½ | 1/2 |
| | 2-cr. | 1/- | 1/0½ | 1/1 |
| 7lb. boxes | 4-cr. | 1/3 | 1/3½ | 1/4 |
| | 3-cr. | 1/1½ | 1/2 | 1/2½ |
| | 2-cr. | 1/0½ | 1/1 | 1/1½ |

The above prices are for Adelaide, Melbourne, Sydney, Newcastle and producing centres, plus the usual additions to prices for shipment to other ports, as per terms and conditions of sale.

## THE NEW SEASON'S FRUIT.

### Packing in Full Swing.

The official figures in connection with this season's pack of dried fruits have been made available. The figures show the number of tons received at packing sheds at Mildura and surrounding districts, including Curlwaa, Merbein, Birdwoodton, Irymple and Red Cliffs, up to Saturday, March 21, and are as follow:—

| | Tons. |
|---|---|
| Currants .. .. .. .. | 3082 |
| Sultanas .. .. .. .. | 2425 |
| Lexias .. .. .. .. .. | 8 |
| Total .. .. .. .. | 5515 |

Of the Currants, 1078 tons were received at the Merbein, Birdwoodton and Curlwaa sheds, and 2004 tons at the Mildura, Irymple and Red Cliffs sheds; the figures for Sultanas being 853 tons and 1572 tons respectively. The amount taken to the Merbein, Birdwoodton and Curlwaa sheds for the week ended March 21 was 439 tons of Currants and 485 tons of Sultanas, and at the other sheds 858 tons of Currants, 592 tons of Sultanas and 8 tons of Lexias.

## DRIED FRUIT SPECIALITIES.

### A Try-out at Wembley.

The Board of Management of the A.D.F.A. have decided to test the possibilities of the British market for certain special lines.

An arrangement has been made with Messrs. Turner, Kempson Pty: Ltd., the official carton packers, to send an assorted parcel to Wembley of their special Raisin products.

The trial consignment is to consist of ten gross each of the following specialities:—Raisin Honey, Raisin Butter, and Raisin Syrup.

## COLD DIP PROBLEMS.

### "Pearl Ash" Query.

In answer to our enquiry as to whether a variable amount of alkali made any difference in the cold dip solution, the following letter has been received from Mr. E. Thomas, B.Sc., B.Agr.Sc. (Merbein Research Farm):

"In regard to your enquiry as to the relative merits of "pearl ash," and B.P.810/0K2CO3, I regret to say that the question must be deferred for a few days until the arrival home of Mr. A. V. Lyons, who has been away for a few days.

"Owing to the heavy pressure of instructional and demonstrational work on the cold dip process, we have been unable to carry out any analytical work on the purity of the Pot. Carb. used. Certain samples have been submitted for analyses, but the results have not yet come to hand. The sample of carbonate used in our work was priced 47/- per cwt., and apparently the results to date are satisfactory.

With regard to the emulsification: Certain foreign products in the 'olive oil' rather than the amount of alkali in the Pot. Carb. seem to be of dominant importance. As the Pot. Carb, is greatly in excess of the olive oil, with a good quality oil emulsification is usually thorough and immediate. **The questions as to purity of the carbonate and the rate of drying—the right proportion of alkali and carbonate are questions which must be solved by experiment.** Further particulars will follow.'

---

Recently the Board had several conferences with Federal and State bodies dealing with the distribution of dried fruits.

The Board has decided to make no announcement regarding prices at present.

No restriction will be placed on the distribution of Victorian dried fruits so long as the Board's directions regarding the proportion of the crop which may be released for Commonwealth consumption are observed by traders.

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**Our Fruit on the Way.**—The first parcel of this year's fruit, mostly Currants, left recently on the "Maloja," and amounted to about 400 tons. She also picked up a big parcel from Adelaide.

### Acknowledgment.

We are in receipt of a map of England and Wales from Mr. Barney Springer, 12 Russell-street, Covent Garden Market, London, W.C.2.

**Ford Cars.**—There has been a reduction in the price of Ford cars, which are now as follows:—Universal 5-seater touring car, fitted with electric starter and dual ignition, £192/10/-; one-ton truck chassis, £158; one-ton truck chassis, with four extra gears, £180.

## Western Australia.

### (By "Sou-West.")

The first export fruit steamer to load at Bunbury this season was the "Barambah," due to arrive on March 16th, but she did not berth until the 19th. There were over 20,000 cases of Apples booked for loading, principally from the Bridgetown district, but Donnybrook, Capel, Balingup, Boyupbrook, and other fruitgrowing districts were also well represented. Approximately half the quantity shipped was handled by Westralian Farmers' Ltd., but as a result of the delay in arrival of the steamer, a quantity of the fruit had to be kept in trucks or the shed after arrival at Bunbury. Fortunately, the weather was cool, so that the fruit did not deteriorate to any harmful extent. Westralian Farmers' Ltd. were extremely fortunate in having their new cool store at Bridgetown, which enabled them to hold the fruit until the ship was ready, when it was inspected and sent straight alongside the boat.

Fruit from other districts was inspected at Bunbury, where every facility was placed at the disposal of officials by the Harbor Board. Bitter Pit was found to be present in a very slight degree, but in not nearly the percentage of last season, while the San Jose Scale was almost entirely absent. A few consignments were rejected on account of careless packing, but on the whole the shipment was highly creditable to growers and well up to the standard of the Western Australian fruit. Messrs. Hayward & Son, agents for the "Barambah" left nothing undone to ensure quick handling; in fact, the manner in which the shipment was arranged reflected great credit on all concerned. A slight congestion was caused on the jetty on account of the late arrival of the boat, but the harbor authorities did their best to cope with this. The second shipment will be lifted by the "Boorara" during April.

### Nitrate Consumption.

It is estimated that the world's consumption of Chilean Nitrate of Soda for the year ended 30th June, 1924, amounted to 2,190,000 tons, as against 2,165,000 tons for the previous 12 months. The European demand, at 1,103,000 tons, was slightly higher than that of the previous year, viz., 1,032,000 tons. The consumption in the United States, at 937,000 tons, showed a small decline. It must be remembered, however, that the United States figures had jumped the year before from 550,000 to 984,000 tons.

### Appreciation.

Albany, W.A., 16/3/1925.

Dear Sir,—We are very pleased with the "Fruit World." (Sgd.) M.J.

# The Apparent Scope and Limitation of Co-operative Marketing.

## Valuable Suggestions for All Interested in Organising.

*Specially written for the "Fruit World" by Dr. Reavers J. Blatt, of California and South Africa.*

(*Continued from page 106 March "Fruit World"*)

BASIC PRINCIPLES relative to co-operative marketing of fruit form the theme of this series of articles.

Of the eleven fundamental principles laid down by the late G. Harold Powell of the California Fruit Growers' Exchange (Citrus), four were dealt with in the last issue of the "Fruit World" as follows:—

1. Organisation for marketing purposes can be most readily effected when conditions in the given industry are such that the need of improvement is quite generally apparent to those engaged in the industry.

2. Unless at the time of organisation the conditions are such that striking improvements are possible early in the life of the organisation, the organisation itself is likely to die from inertia, or succumb to attacks from outside interests.

3. The membership must represent sufficient volume of one product, or closely allied products, to enable shipments to be made in carload lots, depending on the product, and to effect a sufficient aggregate saving in the cost of marketing to more than counterbalance the expense of operation.

4. Membership in a growers' organisation should usually be limited to actual growers of the crop to be marketed, and must consist of persons whose interests are similar.

Continuing, Dr. Blatt writes:—

**5. Definite provision must be made for financing the business of the organisation.**

In the plan of organisation of a co-operative Association, it is advisable, after careful estimates have been made, to include a definite plan for securing funds. This has been done in various ways in the past. In the Citrus industry where packing houses and equipment are necessary, a common method is for the local association to organise as a joint stock company, in which each member is required to purchase a certain amount of stock for each acre of his orchard. This stock, which may amount to £5/-/- per acre, is usually paid for gradually by about 2½d. being retained from each packed box of citrus handled by the association, until the entire stock has been paid for. The money for the erection of the packing house, however, is usually obtained from a bank or an individual grower. The banks, however, are more favorably disposed to associations organised with capital stock, than those without capital stock, although lately there seems to be very little trouble for the latter form of organisation to get loans from banks.

The California Almond Growers' Exchange in the first year of its operations, 1910, finding itself unable to negotiate loans as an organisation, was obliged to secure the £6,000 needed to finance its operations, by notes signed by individual growers. However, since this Exchange and the Walnut Growers' Exchange have demonstrated their ability to meet financial obligations, they can borrow all the money they need.

The amount of money needed by an organisation depends largely on the nature of the products handled. Some organisations have deemed it advisable to have a larger amount of capital than could be conveniently subscribed for by the growers on an acreage basis, in order to create a large working capital and thus render themselves less dependent upon loans secured from banks for carrying on their business.

Stock subscriptions for £160,000 were secured by the California Associated Raisin Co. before business was started, and for £120,000 by the California Peach Growers, while larger amounts were later secured by both.

The California Prune & Apricot Growers Inc. wanted £150,000 before undertaking business.

In all these organisations, the "grower," the public, and the investor were all appealed to on various grounds, in the efforts to secure the desired amounts.

Although in each case a voting trust has been created to prevent hostile interests from securing control over the policies of the organisation during the life of said trust, there is an element of danger, since the interests of subscriber and grower are different, furthermore it is against the principles of co-operation.

The growers have repeatedly been warned not to sell their stock, since as long as the stock remains in the hands of growers the industry is on a good footing. The best plan is to try and keep out the non-grower as much as possible. The growers could supply a working capital by means of a revolving fund and bonds could be issued for real improvements.

**6. The benefits accruing from membership in the organisation should be distributed among the members in proportion to the value of the products handled for each.**

Surplus profits should be distributed on the basis of the value of products handled, since such a division places the emphasis upon the contribution of products from year to year to support the business of the organisation, rather than the contribution of money at some previous time, and also encourages the production of large yields per acre, and of high grade products, since value rather than volume is emphasised. Where the capital stock is held in amounts disproportionate to the acreage or products handled, the best plan is to limit the dividend paid on the capital stock to a reasonable rate of interest, to set aside a limited amount as a reserve fund, and to divide the remainder among the growers, in proportion to the value of products handled.

The non-profit organisation, i.e., organised without capital stock, has no profits to distribute. In this case after estimating the costs of running the organisation, so much is deducted from each growers' cheque to cover the entire cost of operating, i.e., in proportion to products handled, at the end of the season, when the exact costs of operation are known, any surplus is pro-rated out to the growers, or this surplus may be voted as a reserve fund by the Directors.

Costs of operating are usually charged per box or lb. and not value, since it costs just as much to sell a box of low grade fruit as a box of fancy fruit. Some organisations with capital stock, but operating on a non-profit basis consider 6 per cent. interest on the paid up capital as part of the operating expense.

The Sebastopol Apple Growers' Union pay neither dividends nor interest, but give the growers the direct benefit of the further reduction in the cost of marketing.

**7. The voting power may be based on individuals (one-man one-vote), volume of product, or shares of stock.**

In a strictly co-operative organisation, the "one-man one-vote" principle should be adopted as fundamental. The objections to unequal voting power are somewhat lessened where the financial contribution of each member is made proportional to his use of the organisation and is kept progressively so. However, in the case of members with very large interests, it is advisable that some limitation be placed on the voting power.

Since a co-operative association is an operating industrial democracy in which the members trust each other as men, it should preferably be founded on equality of membership. This is also the best evidence of mutual confidence in co-operation, because, in the final analysis, it is the

members who, as men, co-operate in these organisations. Their success depends on their belief in each other and on their fairness in dealing with their mutual business problems.

Many of the local associations of Citrus Growers which are affiliated in the California Fruit Growers' Exchange, provide for a vote on an acreage basis or on the basis of shipments the previous season.

The Walnut Growers and the Almond Growers base their voting on tonnage. In all three of these cases, in the annual elections of directors and in actual practice the members often elect their directors by an almost unanimous vote.

The new organisation of the Sun-Maid Raisin Co. recognizes the value of the one-man one-vote principle, regarding it as a fundamental principle of co-operative marketing, hence has changed over to this method of voting. In general it may be said, that where harmony prevails, the basis of voting is immaterial, and where it does not prevail otherwise, there is little chance of its being introduced by resort to some particular method of voting.

**8. A large co-operative movement should be founded on independent local units which federate for greater business efficiency.**

By means of the local associations, growers become acquainted, and since their ideals and aims are alike, they soon become familiar with their organisation.

In the citrus industry there are 206 local associations, each of which has a representative on one of the 20 district exchanges, and each district exchange in turn has a representative in the Central Exchange which is really the servant of the local associations. There is thus direct contact between all the parts of this wonderful organisation, and while the Central Exchange is the most important of the three, it is the 206 local associations that form the foundation of this tremendous organisation.

In such an affiliation, the identity of each local is preserved and its interests are fully represented in the central organisation. Since all the representatives meet frequently, they are fully aware of the problems confronting the industry and are better equipped through understanding to carry on the business efficiently.

Organisations with local associations are better able to distribute products, and especially if each local has a vital and personal connection with the central organisation. If local associations had no central exchange, the interests would be left in the hands of a few, and through lack of personal contact the interests of each local association cannot be safeguarded.

A representative from each local association is better equipped to look after his locality's interests, than the representative chosen by all the growers. This representation from each local association is vital to the permanent success of a co-operative enterprise. The central organisation needs the local association for local loyalty, local problems and growers' contact.

The California Fruit Exchange (deciduous) suffers the disadvantage of being a joint stock company, in which part of the stock is held by each of the 28 local associations, and part by individual growers. The eleven directors are elected by the stockholders voting on the basis of shares of stock. Provision is, therefore, made that each local association not represented on the Board of Directors, shall be entitled to select from its membership someone to sit with this Board at all its sessions, to be known as an Associate Director, and enjoy all the privileges of a regular director, except voting.

In the California Almond Growers' Exchange each of the 20 local associations elects a representative, who shall pay a membership fee of one dollar to this corporation and be a member of this corporation, and represent his local association until the election of some other person in his stead. These representatives annually elect five directors, who manage the affairs of the organisation.

In the California Raisin Growers' Association, each grower had one vote in mass meeting for the election of five directors who conducted the business of the organisation, and local associations played no part.

In the organisation of the California Associated Raisin Co., the stockholders, including growers and others, voting on the basis of shares and stocks held, elected 25 trustees, five each from five districts, for a period of seven years, and they annually elect a board of seven directors from among their number. The trustees meet in an advisory capacity once in three months, and the directors once a week. There are no local associations, the members of which can talk things over, and make their influence felt in the central body.

The California Peach Growers' Association is formed essentially the same as the Raisin Company.

The Prune and Apricot Association is also similar, differing only in that the State is divided into seven districts for the election of trustees, two of whom are to be elected from six districts and 12 from the district comprising the Santa Clara Valley; one trustee is also appointed by the State market director. All are to hold office for seven years, and do all the voting of shares of stock that is done in the meantime.

It is unfortunate that organisations of fruit industries recently effected should have adopted this plan of having one large organisation made up directly of individual growers, who have no voice whatever in the affairs of the organisation except at long intervals. This plan of organisation is lacking in the personal touch, which is essential to the permanent success of a co-operative enterprise.

J. W. Lloyd predicted in 1915 that in the case of organisations like the above three mentioned organisations, it was a serious question how long they would be able to persist. Judging from the trouble all three of these organisations met with in 1922 and are still having in 1923, Lloyd was certainly right. These three organisations cannot be classified as highly successful co-operative organisations, and one of the big reasons is this lack of contact between grower and administration.

**9. Each organisation must possess—represented either in its membership or its employees—a degree of administrative ability and business acumen commensurate with the volume of the business to be transacted, and the intricacy of the problems to be solved.**

Probably the thing most needed in any organisation is business ability, and most of the failures of co-operative societies may be traced to poor management, for the principles of co-operative marketing are fundamentally sound, and where there has been proper management, success has followed. At the time of organisation of any co-operative society, the natural leaders in the community soon manifest themselves, and naturally grasp the significance of the movement more than others.

These natural leaders are essential, especially at the time of organising, but organising ability does not necessarily imply the existence of ability to sustain an organisation once formed, hence it is often necessary to change the leaders after awhile.

This was certainly proved in 1923, when the managership of the Sun-Maid Raisin Co. changed hands at the time of re-organisation. Wylie Giffen was a natural leader and helped to organise the Sun-Maid Co., which, however, grew so rapidly and became such a large financial undertaking, that it needed a merchant who could dispose of crops and understand markets, rather than an organiser. Furthermore, it needed a financier who could find and handle the large capital needed to run the Sun-Maid Raisin Co.

As a result Giffen resigned, and Ralph Merritt, Manager of the California Rice Growers' Association became the manager of the new organisation of the Sun-Maid Raisin Co. at a salary of £10,000 a year. This is a large salary to pay any man, but if a manager is competent, he is worth that amount of money to the organisation. This salary is way above any salary obtained by any other manager of a co-operative organisa-

tion, but then when one considers the £1,600,000 capital of the Sun-Maid Raisin Co., a good competent manager is absolutely essential for such a large company, while his salary is a small item considering what he can save the organisation.

In discussing the trouble that the Sun-Maid Raisin Co., and Apricot and Prune Growers' Association met with in 1922, with several prominent men, including managers of successful co-operative organisations, there seemed to be a concensus of opinion that poor management played a large part.

In the case of the former, the new organisation of the Sun-Maid Raisin Co. at once realised that the expenditure was too great, and announced a saving of £300,000 in the budget for 1923. Deductions were made in each of the departments, e.g., £80,000 was deducted from the advertising budget between February 1st and September 1st, and whether this would hinder the sale of Raisins could not be considered, the money had to be saved. Furthermore, there was a deduction in employees of 25 per cent., and a general cut of salaries, which, it is claimed, should improve the efficiency of the employees rather than decrease it, proving that there must have been much inefficiency due to bad management.

It is further claimed that the large substantial plants of the Sun-Maid Co. are not utilised as efficiently as they might be, and whereas they constitute a tremendous overhead, they should be worked to full capacity.

In the case of the Apricot and Prune Growers' Association, the sales department got into trouble, leading to legal proceedings in 1922, and in the same year or a little later the whole Board of Directors was relieved from duty, although reinstated later. Whereas poor management covers a great deal, and means so much, probably no one word describes the causes of such events better, for had good management been present situations like these would hardly arise.

The uncertainty of human nature has long been a factor, and in selecting any manager there is always this risk—the difference of a good manager and a bad one, means success or failure.

**The success of the California Fruit Growers' Exchange, the largest co-operative organisation in the world, can be traced to the ability, personality, and far sightedness of its former manager, the late G. Harold Powell.**

According to the Secretary of the California Honey Producers' Co-operative Exchange, poor management was the cause of their recent failure, although the setting of too high a price was also a factor.

Broad experience and demonstrated ability on the part of those employed to fill important positions have been recognised by the directors of the various successful co-operative organisations as essential to the success of these institutions. Knowledge of men and marketing methods and trade conditions in general have been considered more important than specific training in the handling of a particular commodity, for fitting a man to manage the business of a central co-operative selling organisation.

Many managers of large co-operative organisations in California today, were sales managers in Eastern U.S.A. at some time or other. This experience is exceptionally good training preparatory to the assumption of duties in responsible positions in the California offices of the various co-operative marketing organisations.

Another most important factor is, the integrity of the management must be beyond reproach. It must be free from entangling business alliances, and from participation of secret profits, and above all, it must develop the principle of square deal.

(To be continued.)

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# Control of Woolly Aphis.

**By C. French, jun., Government Entomologist, and L. Pilloud, Orchard Supervisor (Victoria).**

## An Effective Spray.

DURING 1923 several experiments in the control of woolly aphis (Eriosoma lanigerum) were carried out at Upper Pakenham at the orchard of Mr. W. Laidlaw.

The first spray used was nicotine sulphate alone, which was applied on the 1st May. The results were only partially successful. On the same date 100 trees, between nine and ten years old and very badly infested with woolly aphis, were treated with a combination spray of nicotine sulphate and red oil and soap. These trees were examined on the 20th November last, and were found to be perfectly free of woolly aphis, states the Victorian "Journal of Agriculture." The total cost of the material required to spray the hundred trees was 11/-, made up as follows:—

| | s. | d. |
|---|---|---|
| Nicotine sulphate, 1 pint . . | 7 | 6 |
| Red oil, 1 gallon . . . . . | 3 | 6 |
| | 11 | 0 |

The cost thus works out at less than 1½d. per tree.

To prepare sufficient mixture to treat 100 trees, 1 lb. soap should be boiled in a gallon of water till dissolved; add 1 gallon of red oil and mix thoroughly; then add 1 pint of nicotine sulphate, and after mixing the whole for a few minutes, add 80 gallons of water. If the water is hard, a small piece of washing soda should be added.

The whole tree should be treated and the spray applied with sufficient force to reach insects in crevices.

From our experience we are of opinion that the best time to apply this combination spray is during the winter months when the trees are free of leaves. It has, however, been used in October on trees in blossom and no burning occurred. It would not be advisable to use the spray during the summer if the ground were very wet, as a slight burning of the leaves might occur.

Experiments with many other sprays were carried out, but with rather unsatisfactory results. Further, the cost of them would prohibit their general use.

We are indebted to Mr. Laidlaw for permitting us to use his orchard, and to Mr. W. Black, Mr. Laidlaw's manager, who helped to carry out the experiments and did all the work of spraying.

### Parasites on Woolly Aphis.

A number of woolly aphis parasites (Aphelinus mali) has been imported from New Zealand by the Science Branch of the Department of Agriculture, and when sufficient have been reared they will be liberated.

In view of the success of the experiments with the combination spray, however, and its very moderate cost, orchardists would be well advised not to rely wholly on the parasites to destroy the aphis.

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# LEAF SCORCH OF STRAWBERRY.

## Control Measures.

The disease known as "leaf scorch" of the Strawberry has been investigated by the Assistant Biologist of the N.S.W. Department of Agriculture (Mr. W. A. Birmingham), and his report, which appears in the N.S.W. "Agricultural Gazette," is to the effect that when the disease appears, purplish spots up to a quarter of an inch in diameter appear on the upper surface of the leaves. For controlling the disease the following advice is tendered:—

1. Avoid susceptible varieties as far as possible.
2. Do not use plants showing any blotch conditions when planting out.
3. As far as it is practicable, destroy all diseased material by burning it.
4. Early spraying with Bordeaux mixture, made up in the proportion of 1 lb. of bluestone; 1 lb. of freshly-slaked lime to 20 gallons of water.

It is essential that a spray nozzle should be used, which will direct the mixture on to the underside of the leaves as well as on the upper surface.




## FRUITGROWERS' ORGANISATION IN CALIFORNIA.

**Dr. Cameron (Director of Agriculture for Victoria), Speaks Appreciatively of the California Fruitgrowers' (Citrus) Exchange.**

IN an address before the recent interstate Citrus Growers' Conference, the Director of Agriculture for Victoria (Dr. Cameron), spoke in terms of high appreciation of the citrus growers' organisation in California. He said that he had gained some insight into that wonderful organisation known as the California Fruitgrowers' Exchange. He was impressed with the fact that the same spirit of co-operation did not always prevail in similar institutions in Australia. The unit of that organisation was the packing shed, and its success lay in uniformity of grading. There were some hundreds of packing sheds and these were organised into district associations, of which there were 20 in Southern California. They acted as agents for all packing sheds in the district. They appointed a standing market committee of 20, representing 20 district associations. This body met every day and carried information to that meeting concerning what was happening in the packing sheds of their districts on that day. Thus it knew the exact quantities, qualities and varieties packed in all the districts.

At each meeting the actual position in every direction became known, and that information was transmitted to the central organisation in Los Angeles, from which point it was handled by that body, which was in touch with the selling end of the business. By wire and wireless it received daily and hourly information regarding the position in all the great cities of the East. It kept in constant touch with the weather conditions. It received orders and proceeded to allot and make sales. Sales by auction were conducted by telegraph and wireless, the outcome of which was considerably to keep up prices.

One of the great factors in the success of this whole organisation was the relationship between the Eastern U.S.A. bodies and the Exchange, and the railway companies and the Exchange. There was, all round, the utmost sympathy and helpfulness.

Changes of shipments, for example, would be made in relation to changes of weather in the various cities of the East, the railway companies would be entirely sympathetic in promptly switching orders from one end of the country to another, in the course of transit, to meet varying requirements according to variations in the weather.

The organisation had become so powerful that it was beneficial in other directions beside that of marketing. There were citrus growers, for instance, who might have their every operation in their groves done for them at contract rates by the Exchange. He had spent a couple of days with Professor Shamel, who had given him an interesting insight into his world-famed work on bud selection. He had classified citrus trees, not merely in regard to varieties, but with respect to their growth and characteristics. Buds for budding stocks could now be secured with a definite pedigree. The California Fruit Growers' Exchange had established a separate company called the Citrus Bud Exchange, which supplied orders from selected strains of trees.

It was clear, therefore, that it was a practical success from the viewpoint of the grower. California, of course, continued Dr. Cameron, had a wonderful home market, which had impressed upon him that far more should be done with our home market. In any restaurant in America one would see an electric juice squeezer. The man who had got the first in Honolulu had made £250 in 14 days by buying Oranges in the market and selling the juice retail in the form of drinks. In this and many other ways the Australian home market could be far more fully exploited. Our export market was 12,000 miles, or six weeks, away. California's vast Eastern States export market was only six days away. It would be well worth while for a conference of this kind to arrange to have a suitable man sent to California to study the position for three or four months with a view to our adopting some of their methods here. There was a great deal Australian Growers did not know about their own industry. The Citrus Association should send a representative to California, even if the cost were £2,000, this would be returned a hundredfold.

# News and Notes.

## VICTORIA.

### Wangaratta.

**Heavy Citrus Crops Anticipated.**

Mr. J. P. Larkings, Secretary of the Wangaratta Citrus Growers Association, writes, (7/3/25).—

Throughout the groves of this district there is a very even setting of all citrus fruits. Comparing this season with last, Navels are showing a heavier crop, Valencias, much heavier ; Common Oranges, a good increase; Mandarins, about the same; Lemons, a substantial increase.

The total estimate will amount to 25,000 cases of all citrus fruits. The heavy and regular falls of rain during the summer months have suited this district, and the trees are in perfect state of growth, more especially the young trees.

### Shepparton.

Citrus growing in the Shepparton district is making steady progress. The estimate for the forthcoming crop is anticipated by Mr. E. H. Kershaw, of Orr Vale, as being in the vicinity of 17,500 cases of Oranges, which would be an increase of 5,000 cases over last season, and 3,000 cases of Lemons for the winter crop only, the summer crop promising a heavy yield.

The Shepparton branch of the Victorian Central Citrus Association has enrolled nearly all the growers in the district, its membership now numbering 56. The Department of Agri-

culture has established an experimental citrus block in the district for manurial purposes, and soil treatment, etc. That the district is proved citrus country (states Mr. Kershaw) is shown by the following results:—In 1922 the V.C.C.A. obtained 3rd prize in England against the world, Shepparton Oranges being included in the consignment of six cases. In 1923, at Melbourne Show, Shepparton took first prize for Lemons and 3rd for Late Valencia Oranges. In 1924, 1st prize was again secured, together with second, for Lemons; and 2nd and 3rd for Late Valencia Oranges.

## NEW SOUTH WALES.

### Pennant Hills.

Mr. W. F. Cotes, Pennant Hills, N.S.W., writes under date, March 9th:

Prospects so far indicate medium crop Mandarins, the Emperor variety being grown chiefly; Oranges, heavy crop, mostly Navel and Valencia; Lemons, good crop of marketable size.

The season is a good one, the recent rain, 2 inches (March 3rd and 4th) practically ensuring the harvesting of a full crop. This is in direct contrast to last year, when season was absolute failure, even a light crop being completely ruined by a severe hail storm, which stripped the trees.

The district generally is forging ahead; new orchards are being planted, and it is becoming generally recognised that this is one of the best districts around Sydney for citrus culture. It is certainly the home of the Emperor Mandarin, as it thrives here free from the brown and black spot.

A movement is at present afoot to establish a big

**co-operative packing shed**

in the district alongside the railway, and it is expected that within a few months the shed will be in full swing.

Already over 30,000 cases are promised, and this will be a big boom to the district. Enquiries are already being made for land and orchards by prospective buyers. The district is served by two railway sidings—Pennant Hills and Castle Hill, from which large quantities of citrus are despatched.

### Gosford.

Mr. W. E. Kirkness, Gosford (N.S.W.), writes on March 13th:—

I have been able during the past few weeks to visit many of the fruit-growing centres of the Gosford district, and have carefully noted crop prospects for the coming season. Most localities are carrying good crops, and orchards are in good condition, with the exception of heavy growth of summer grass (owing to the moist season), which is being ploughed in for green manure.

In my opinion the crop will be **greater than last season.** There has been much new planting in the district, notably in Wyong direction, where there are some very fine young orchards.

### Glenorie.

Mr. Hutchinson, Glenorie, N.S.W., reports under date March 14th, re citrus crop prospects: — Common Oranges, medium to light; Valencia Oranges, light; Navel Oranges, good; Mandarins, medium; Lemons, light;

The Passion-fruit crop appears to be light so far.

### Mangrove Mountain.

On behalf of the Mangrove Mountain Citrus Packing House Ltd., Mr. N. E. Lillicrapp reports that the prospects of the citrus crop in the Mangrove Mountain district for the year 1925 are as follows, the yield in 1924 being given in parenthesis:—Mandarins, 8,000 bushels (6,000); Parramatta Oranges, 3,000 bushels (2,000); Joppa, Siletta and Homosassa, 3,000 bushels (2,000); Late Valencia, 8,000 bushels (6,000); Lemons, 3,000 bushels (3,000). This quantity also covers the Mangrove Mountain Fruitgrowers' Association.

## QUEENSLAND.

### Redland Bay.

Mr. James Collins, Redland Bay, Queensland, writes under date, March 7th:—

The coming crop of citrus will not be nearly so large as the 1924 crop; it is not possible to give statistics, either of last year, or previous years, but would be safe in saying that this year's crop will not be much more than half of what last year's was.

**Navels** are showing a much heavier crop than usual, but other Oranges and Mandarins are on the light side, but the fruit promises to be larger than usual, and will not be as early in ripening.

**Lemons** will likely be as heavy as last year, a good crop is showing, and they are still flowering and setting fruit.

The season so far has been one of the best we have ever had, but has not been conducive to heavy crops of fruit setting. There has been no **Mango** crop here, **citrus** is light, and **Custard Apples** are very light, especially "Pink Mammoth," the lightest for years; it is not likely that much of the fruit will find its way to Sydney or Melbourne this season.



*"Sun" photo.* ***Some of the Delegates at the recent Interstate Citrus Conference at Melbourne.***

### Howard.

Mr. R. Shaw, Junr., of Howard, writes as follows:—The citrus crop is fairly light this year, and will not by any means reach the quantity of cases which was marketed last year. The Emperor Mandarins in most orchards is very light, and the pink wax scale is causing orchardists a lot of worry and expense in trying to combat it. New areas are being cleared and planted with citrus, Mandarins predominating.

## SOUTH AUSTRALIA.

### Berri.

Mr. C. G. Savage, Deputy Horticultural Instructor, writes, 24/2/25.—

The citrus prospects of this district for the present season are.—

**Washington Navels,** very fair crop, far in advance of last season. Fruit appears to be growing rapidly and may be a little on the large side.

**Valencia Lates,** fair crop, not as heavy as last year.

**Common Oranges,** fair crop, about same as last season.

**Mandarins,** crop light to medium, not equal to last season.

**Lemons,** good crop, about same as last year.

## Spraying the Citrus Grove.

### Interesting and Valuable Hints.

**(By W. S. Arnold, Manager, Returned Soldier's Settlement, Kurrajong.**

SPRAYING to be effective has to be done—

(1) In a **thorough** manner.
(2) At the **right** time.
(3) With the **right** material.

Regarding the first. One annual thorough spraying may save two or three further applications that season, hence save expense and give cheaper ultimate results. Spraying thus could be really regarded as a premium paid against loss of profit.

Every leaf on both sides, inside and outside the tree, every crevice and corner on leaf, twig, limb and trunk must be covered. It is not necessary to drench the tree. If you have a good pump and good nozzles, and a good man at work, you can do the work thoroughly and lose but very little mixture. It is what sticks on trees that does good,not that which runs off. Spraying is dirty, disagreeable work, but the increased vigor of tree and value of the fruit make it worth while.

Some diseases occur regularly, others only occasionally. Spray if possible to prevent, but if disease appears complete annihilation by thorough work must be our aim, for scale and aphis breed very rapidly.

To slum spraying is false economy and bad business. One often has to slightly open up centre of tree when foliage is too dense inside, as it is practically impossible to thoroughly spray through crowded foliage, and it is here so often that disease harbours. Spraying should always be done by the **owner** of the orchard to ensure thoroughness of work. So often spray materials are blamed as being ineffective, when it should be put down to carelessness in application.

If sprayed perfectly, there is no chance of pests increasing on that particular tree from its own resources.

**What is the Right Time to Spray?**

This is well worth considering, before we follow any set rule. The climatic conditions being different in other districts, may necessitate their either spraying before or after our usual time at Kurrajong, according to the stage of development of the insect pest we are out to combat. Last year I noticed the wax scale at Bilpin was about six weeks later in maturing than here.

Again, on our own areas, we cannot say because January was the best time to spray for scale this year, that it will be next. Seasons may alter the conditions. If trees are suffering from a dry spell, wait for rain, because in hot, dry weather, the sap flow is not at normal capacity, hence spraying would be a further check to tree and may even denude it. At such time, when sap is sluggish, the scale pests are not working so freely and are harder to kill.

Spraying when weather is too hot may scald foliage, although I have sprayed with temperature at 104 Fahr., and on the settlement last year it was done without damage, because trees had healthy growth.

**Don't spray when leaves are wet from dew or rain, or, if raining.**

**Oil sprays must never be used on citrus trees when trees are dormant as in winter, or in very dry weather, for trees are very touchy if at a standstill.** There is a possibility of the oils being absorbed by the bark of the tree, which will cause trees to shed leaves heavily, and possibly damage small twigs, whereas it will hardly injure the young soft growths.

As a **preventive** for fungus disease, it would possibly pay to spray every citrus orchard at least once, with lime-sulphur, just after fruit has set. (Never spray when trees are in full bloom). It is hard to wipe out fungus diseases once they have a grip. They can often be controlled to a certain extent, but spray rather to prevent, for prevention is better than cure. Spray all trees, whether clean or dirty. Besides being a fungicide, lime-sulphur is an insecticide, and is the nearest to a cure-all spray we can get. The other fellow who doesn't spray is the one to suffer losses, and really helps the spraying orchardist to get better prices.

The best time for spraying for all scale insects is just when they are hatching out. **Careful observation is always needed before spraying for these.** The following calendar will, however, give the new man a fair idea as to general time to spray, and a close watch for pests and study of the health of the trees and other conditions enumerated, will show the exact time.

**June, July and August.**—Paint barrels and larger limbs with lime-sulphur at rate of 6 lb. blue stone, 4 lime to 22 gallons of water. This mixture can be purchased ready in concentrated form, but must be used the same day as opened, following instructions given with preparation. This application is an excellent remedy for white lice and all classes of fungus growths on limbs.

**October.**—Just after fruit has set, standard lime-sulphur or Bordeaux mixture can be sprayed to prevent the germination of spores of the fungi causing disease, such as Black Spot, Brown Spot, Melanose on leaves, and mosses and lichen on trunks. To this spray mixture can be added arsenate of lead, at rate of 1 lb. to 50 gall. mixture to poison leaf and rind-eating insects as Dicky Rice.

Climatic conditions affect prevalence of fungus diseases, and hence the frequency of application.

In muggy seasons lime-sulphur or Bordeaux mixture could possibly be profitably applied, **once in October and November.**

Bordeaux is easily prepared, and generally has a more lasting effect than lime-sulphur, but it renders foliage somewhat harsh.

**January and February.** — Spray with washing soda, 2 lb. to every kerosene tin of water (4 galls.) for Indian wax, when about size of pin's head.

**February, March, April.**—Spray for Red Scale, Olive Scale, White Lice, with Red Oils as per instructions with material. As a combined spray to combat Wax Scale, use 14 lb. soda to 40 galls. of above mixture.

We prefer using red oil preparations in autumn, as growth is then more vigorous and healthy. Experience has proved that less harm results to trees sprayed in autumn than spring.

## SOFTWOOD CASES.

### Rebate of Duty Decided Upon.

**Orchardists and Exporters will be interested to learn that as a result of the continued representations that have been made to the Government, extending over a period of three years, they have decided to allow a full refund of duty paid on all softwood cases which are re-exported. The refund, which operates from April 1st, 1925, applies to all cases carrying primary and secondary products. Applications for refund should be made a few days before shipment to the Customs Department. Further details in connection with this matter will be published in our next edition.**

## Export Handling Charges.

**South Australia Objects to the Government Export Department's Charge of 9½d. per Case, which Includes Pre-cooling.**

South Australian fruitgrowers who export portion of their Apples are once again bringing forward the subject of the Government Export Department and the charges for pre-cooling, etc.

A correspondent points out that the Government Export Department insists on charging shippers 9½d. per case for all Apples exported, and included in this charge there is a sum for pre-cooling, which, it is claimed, is not necessary.

Questions are asked as follows:—

(1) Is not the matter of pre-cooling one which can be enforced or not by the Federal authorities alone?

(2) Is it still practised in Victoria; and if not, why not?

(3) In South Australia quite a number of shippers do not pre-cool. Therefore, unless it is compulsory for all shippers to comply with the rule, is not pre-cooling worse than useless?

* * *

Victorian export Apple growers state that the whole question of pre-cooling, as far as Australia is concerned, is theoretical rather than practical. The commercial aspect is that including loss of market, extra handlings and added charges, there would be a debit of 17 per cent., even then there is no cool store at the point of shipment in Victoria.

In answer to the South Australian correspondent's questions, the following replies are submitted:—

(1) Pre-cooling may be deemed a Federal matter, but States can frame legislation as may practically ensure control—vide the Queensland Fruit Marketing Organisation Act.

(2) Pre-cooling of Apples is not, and never has been, practised in Victoria. Growers state it is unnecessary and impracticable.

(3) Fruit pre-cooled and shipped in the same chamber as fruit not pre-cooled, will suffer the greater deterioration.

### Couldn't Stall Him.

Whilst down for the Agricultural Show in Adelaide, a countryman took his sweetheart to a city theatre.

Going to the ticket office, the girl hanging on to the sleeve of his coat, he banged down some money, and said—

"Twa seats."

"Stalls?" inquired the ticket clerk.

"Look here, my man," said the countryman rather sharply. "Dinna think because we come frae the country that we're cattle. Gie's two cooshioned seats."

## Fruit Growing Under Irrigation.

Experiments with Cold Dip. : : Downy Mildew Treatment.

*(By Our Special Correspondent.)*

THE weather during the past weeks, with the exception of the light rain storm early in February, has been ideal for fruit drying.

The gathering in of the harvest of Sultanas is nearing completion, the dried product will be somewhat mottled in appearance, owing to the presence of many weather damaged berries. This is to be deplored, as the bulk of the dried fruit will have to be exported.

Many growers have been experimenting with the "cold dip," with varying success. With the favourable weather that has been experienced, a carbonate of potash solution, made up to between 5.5 to 6 degrees Beaume, with olive oil at the rate of half pint to each 25 gallons of solution, has given good results.

Where the dipping mixture has been made up partly from ash lye, made by boiling fresh ashes in water or by passing boiling water through the ashes, and the desired density of the dip made up by the addition of commercial carbonate of potash, the dried product has been usually brighter in colour than where the dip has been made wholly from the potash salts.

Lye made wholly from ashes and reading between 5 and 6 degrees Beaume, with the addition of about ½ pint of olive oil to each 25 gallons of lye, has been reported as giving the brightest coloured Raisin.

The question of the ash lye needs further investigation, as the possibility of producing a better sample of fruit from it than is produced by other methods has been demonstrated by the State Experiment Orchard at Berri, River Murray. Vine ashes are fairly rich in potassium salts, especially is this the case when they are compared with the ashes obtained from our natural timber.

Seeing that the colour question of the dried Sultana plays such an important part in the successful selling of the produce, it behoves all growers to make all possible experiments to arrive at some definite method of producing the desired end. As the ash lye is showing such marked signs in the direction of producing the light colour, and also reduces the necessity of purchasing more or less large quantities of the carbonate of potash, **growers are advised to save all their vine ashes after the next pruning.**

It is essential that the ashes be collected before they become wet, if rain has fallen on them, the greater proportion of the soluble salts will have been leached out and the ashes will be of little value. The fresh ashes must be stored in tins or bags, and kept under cover in a dry shed.

The quantity of ashes necessary to produce a given quantity of liquid with a definite Beaume reading, has yet to be determined.

To gain the greatest benefit from the ashes they should be boiled in water; it will be necessary to stir the liquid from time to time, as the ashes, being heavy, will tend to settle on the bottom of the vessel.

After boiling, the ashes are allowed to settle, and the liquid is drawn off, or the liquid and ashes may be poured through a strainer made with several thicknesses of hessian.

**Points Gleaned in Using the Cold Dip.**

To properly coat the whole of the fruit with the emulsion, all thick bunches should be split up, the emulsion does not penetrate freely through densely set bunches. The buckets of fruit should be agitated while in the dipping emulsion. This not only causes the emulsion to pass through the whole of the fruit, but also tends to keep the oil and potash emulsified.

Should the berries fail to become properly coated with the emulsion, more oil should be added to the dip. After about 1,000 lbs. of fresh fruit has been passed through the dip more oil will be needed, possibly ¼ pint would be sufficient, but this is a point upon which we need further enlightenment.

After the dip has been used for some little while, the density increases owing to fruit juices and salts from the dust on the fruit coming into solution; so that after dipping has been in progress the Beaume reading does not convey a correct idea of the potash strength. After each ½ ton of fresh fruit has been passed through the dip, about 4 gallons of new solution will be necessary to bring the dipping solution up to the original level in the tank. The solution added to the tank should be of the same density as the original reading of the dip.

The fruit treated with the "cold dip" takes longer to dry than that passed through the "hot dip," but the weight of dried Raisins produced from a given quantity of fresh Grapes is greater in the first instance than in the latter.

The question of spraying the fruit after being treated with the cold emulsions, will need further investigations under varying weather conditions before definite rules can be laid down. The spraying undoubtedly aids in the drying process. The question whether oil is necessary in the spray is a further point to be cleared up.

* * *

### Downy Mildew.

DOWNY MILDEW has been more or less present in many of the damper districts throughout the season. In some of the river areas it made its appearance late in the season, probably securing a hold after the damp humid weather in January. Luckily weather conditions since have not been favourable to the rapid spread of the disease, consequently it has been confined to small areas, and has done but little damage.

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The very fact that this disease has again been identified in the river areas should

**make growers very cautious**

during the next spring and early summer months. The disease being an internal one, the germinating spores must be destroyed before the fungus can enter the tissues of the leaves, i.e., the treatment must be preventive. The control of the disease, fortunately, is very easy, and consists in coating the young shoots with a copper spray, such as Bordeaux or Burgundy mixture.

Should proper preventive precautions be lax, or not carried out, given favourable weather conditions the disease may spread through and defoliate the vines in a district within seven or eight days.

# TASMANIA.

## Export and Interstate Trade : Grading Regulations.

(By Our Correspondent)

DURING the end of February the southern fruit districts suffered from the influences of strong northerly gales. Orchards situated in exposed areas experienced rather a bad time, and crops were much reduced, especially Pear varieties, such as Williams, Bosc, Gansell's Bergamot. Apples withstood the buffeting to a much better degree, and with the exception of the earlier kinds and varieties of lateral habit, such as Jonathan, the damage was only slight.

In one or two centres the evaporators availed themselves of the opportunity to commence operations, and the larger and most suitable kinds were processed.

### Overseas Export.

The early crops are now well on their way to overseas markets, and by the time these notes are published the first returns should be available. In spite of the handicap of an adverse season, the fruit received on the wharves is generally satisfactory. After the experiences of 1924 the majority of Tasmanian growers put up a stiff fight to combat fungus infection. The results are evident when comparison is made with areas which received casual treatment, and there is every indication that growers will reap the benefits of their operations when the fruit is marketed.

Spraying, especially for diseases of the fungus order, is often neglected after a series of seasons, which are not conducive to the disease. Very often the grower will compare his results with untreated areas, and decide that his crop does not show a material improvement commensurate with the outlay, and be lulled into a false sense of security.

**The condition can be likened to the householder who questions the wisdom of continually paying his fire insurance. "Spraying" is the fruitgrower's insurance against fungus diseases, and should the season prove to be conducive to its development, his "insurance" will put him amongst those who have the crops when the demand and prices are appreciated.**

### EXPORT REGULATIONS.

#### A Plea for Uniformity.

One of the greatest arguments that were advanced towards the attainment of Federation between the States of the Commonwealth was the immeasurable advantages which would accrue through the unrestricted intercourse of trade between the States.

During the last four or five years Australia has seriously taken up the matters of standardising her products in order to compete on the world's markets with others who have adopted this vital necessity for trade development.

Fruit and fruit products which are exported out of the Commonwealth are controlled by regulations which govern all the States, but the interstate trade is in the hands of the respective States for their determination.

**With the advent of standardisation, it is evident that unless each unit of the Commonwealth supports a common basis for action, a situation will arise which is opposed to the principles of Federation, and will exert an embarrassing and restrictive effect to the trade between the States.**

The regulations governing the overseas fresh fruit export (Apples and Pears) were the products of the careful consideration of representatives from all States, and although these might be slightly modified with benefit, it is eminently desirable that their adoption as standards for interstate trade will be to the best interests of the industry.

**If the fruitgrower, whether he is situated in Tasmania or any other State of the Commonwealth, could place his products at the port of export, with the knowledge that the same grade and brands comply with both overseas and interstate requirements, an immeasurable benefit will have been accomplished.**

Without uniformity in this respect, constant troubles will be experienced, especially if each State tries to make the others comply with their own particular set of regulations.

The matter has been discussed at various conferences, amongst which are those of the Australian fruitgrowers, the Fruit Council and by Ministers of Agriculture, each of which passed resolutions to ensure such uniformity.

Tasmania has acted in accordance with such resolutions, and in good faith, that such would be adopted by other States.

In spite of this, proposals have already been put forward which will wreck what has already been accomplished, and only result in a stultification of the principal objects of standardisation.

#### Fruit Shows.

During the month, the annual fruit shows will be in full swing. In many cases it is becoming difficult to attract the interest of producers to compete in the different classes. The chief reason for the decline is that

many growers have not the time at their disposal when the shows are held to prepare satisfactory exhibits.

It is a pity that some arrangement could not be made to hold these functions later in the season, when the peak of the export trade has passed. Better still, would be an amalgamation of the different societies and a policy followed of having two shows —one in a northern centre, and one in a southern.

These could be carried on upon lines in which each district would have a "court," and competition would be within each district, and between the various "courts."

Such a display would have its advertising value, and the occasion could be made the opportunity for conferences and trade discussions.

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**Fruitgrowers' Fund.**

Arrangements have been made in accordance with the wishes of representatives at the fruitgrowers' conferences, whereby this fund will be put into operation on a voluntary basis.

A levy of 1-16th of a penny per case will be made of all fruit exported to both interstate and overseas markets, whilst the berry fruits processors will collect ½d. per cwt,, and 1-16th penny on stone fruits and Pears. The fund will be primarily used to cover the costs of operation of the Fruit Advisory Board.

**The Late Wm. Rowlands.**

The death of Mr. W. Rowlands at Stanthorpe, Queensland, came as a distinct shock to fruitgrowing circles in Tasmania.

Mr. Rowlands was for a number of years packing instructor to the Tasmanian Department of Agriculture, and will always be remembered for his energetic and painstaking work in the improvement of fruit packing and grading.

Australia can ill afford to lose men of Mr. Rowlands' type, especially under the present day conditions of marketing, when the work he had in hand is the vital necessity of competition on the world's markets.

## APPLES AND PEARS IN COLD STORAGE.

A reader in Kentucky, N.S.W., asks for the following information:—

Can Apples and Pears from seven year trees be successfully stored? The soil in Kentucky is too poor for general farming, it being a light, sandy loam with a clay sub-soil. Rainfall, 32 inches. Varieties,—(Apples), Jonathan, Granny Smith, Democrat, Sturmer. Required to store the Jonathan and Sturmer for two or three months, Granny Smith and Democrat, 4 to 6 months. Pears,—W.B.C., 4 to 8 weeks, Packhams, Winter Nelis, Winter Cole and Josephine, 3 to 4 months.

**Answer** (by W. Lipscombe, Croydon).—Apples and Pears from seven-year-old trees can be stored for a short time provided the fruit is picked at the right maturity. Jonathans and Sturmers should hold up well for five months, Granny Smith and Democrat from 6 to 7 months. Re Pears.—Williams should last from 4 to 6 weeks in cold store. This Pear, however, is not a good cool storer. Packhams, Winter Nelis, Winter Cole and Josephine, 5 to 6 months. As the trees get older the fruit will keep in good condition for a much longer period, providing the temperature is kept at the proper degree, and the fruit picked at proper maturity.

**Answer.**—(By J. G. Aird, Secretary Fruitgrowers' Cool Stores Association of Victoria). Apples and Pears may be successfully stored from seven year old trees for a short period according to the condition of fruit when picked, and the season.

Regarding Jonathan, Granny Smith, Democrat, Sturmer.—If picked in right storage condition, and the season conditions are favourable, these should keep in cool storage for six months.

Jonathan Apples have been held in cool storage for twenty-one months, but it is not a commercial proposition.

Pears.—Eight weeks is rather long to hold W.B.C. Pears. The other varieties under the right conditions should hold up for the required period.

## TO IMPROVE THE "FRUIT WORLD."

A reader writes:—

Improvements I would suggest in your paper are:—

(a) A hole to be punched in each copy so that it can either (1) Have a string through it for hanging up, (2) Have a lead pencil attached. (b) A blank sheet be left under front cover so that a grower can make notes and insert page number of any particular article he wants to keep as reference so that this page may appear like this—

Fruitgrowers' Notes Page:—Page 5, Advertisement, Grader; Page 7, Apple Parasite; Page 9, New Lye.

Then if at any time he wants information on any subject that affects his pocket he glances through his "Fruit World" file and quickly locates the information he wants. I suggest publishing this and asking for criticism, and suggestions from readers for other improvements.

To have Roman figures on page numbers is an atrocious idea. Even Bibles have discontinued using them. Why not number the issue right through 1 to 80 and cut them out?

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# Victoria

## Fresh Fruit Export.

### Proposed Control Bill Opposed.

Owing to pressure on space last issue we were unable to publish the report of the meeting of the Victorian Apple and Pear exporters, which had been specially called to consider the proposal for an Act to control the export of fresh fruit.

The report is as follows:—

A meeting of Victorian Apple and Pear exporters, convened by the Apple Growers' Association of Victoria, was held at Melbourne on February 19th. Mr. J. H. Lang was elected chairman.

The meeting was held to consider a proposed Bill, emanating from a section of the Australian Fruit Council, to constitute a fresh fruit control board in Australia. A summary of the Bill (prepared by the Secretary) was as follows:—

(a) One representative of the Government; (b) six representatives elected by growers in New South Wales, Victoria, South Australia, Tasmania and Western Australia; (c) two members with commercial experience appointed by Government. An agency of the Board may be appointed in London, one member of such to be appointed by Government. The Board to be empowered effectively to control the export and the sale and distribution after export of Australian fresh fruits. Power to be given to prohibit export except under license issued by the Minister.

The Board to have full authority to make arrangements and give directions for the following matters:—(a) Handling, marketing and storage; (b) shipment; (c) sale and disposal; (d) insurance, etc. Provision is made for financing the Board from moneys received under the Fresh Fruit Charges Act 1924.

Mr. J. W. Bailey (Narre Warren) said the proposed Bill had been drafted by a sub-committee of the Australian Fruit Council, which had consulted the Prime Minister, requesting a bounty on export Apples. The proposals were put forward as something by which the growers could control their trade. The Board would arrange for freights to be paid in London. The Board would be elected by the growers of the States, and every grower would have a vote. There was to be no attempt to divert fruit from its present channels. The Board would select a list of sound agents, any of which the growers could choose. A difficulty which now existed was that a weak holder in London could reduce the market price. Under control, this difficulty would be overcome.

A Delegate: Will all fruit go through you, or can I ship through my own agent?

Mr. Bailey: The Board will control the lot.

A Delegate: Did the Australian Fruit Council send out the proposed Bill?

Mr. Bailey: No. It was sent out by a sub-committee to the State Boards to save time, as it costs £150 each time the Australian Fruit Council is called together.

Mr. R. Mair (Tyabb) stated that the difficulties of working a Board like the one suggested was insuperable. The details relating to export changed every day during the season, and again there was the question of expense. It cost £150 to bring the Board together, and discuss matters, the expense for the season would be very heavy. He considered that growers were capable of looking after their own business, and that Victoria should control its own export arrangements. The proposed Federal Board was impracticable and unworkable.

Mr. Carne: Is it proposed to set a time limit for the duration of the Bill?

Mr. Bailey: No. I presume when it is passed the Act will be permanent.

Mr. Tully, who visited England some years ago at the request of the Victorian Central Association, to report on market conditions there, stated that Australia could improve her export conditions, not by control of a Board, but by following out the very practicable suggestions that had been recently made by the National Federation of the Fruit Trade, London. (Published on page 30 of the January "Fruit World.") Growers should organise and not go to the Government. A Federal Board was unnecessary. Growers who depended on their own enterprise were better in the long run. When he was in England, the trade recognised that fruit from one State was different from that of another, and they classified the fruit accordingly. He believed the same conditions applied today.

Mr. H. Willoughby (Tyabb) said that State control was preferable to Federal action. The only one representative from any one State, that man could be out-voted on any point of value to his particular State. As



Photo of the new Peach Mowats Beauty raised by Mr. Mowat of Kyabram, Vic.

regards the appointment of business men, the growers should have the nomination of these. The Government did not always choose the best men, not being in business themselves. It took a business man to choose a business man. What guarantee had the growers got that after passing the draft, it would go through in that form, as Parliament could alter it as they chose.

Mr. Bailey: The Bill will go through as recommended by the Australian Fruit Council. He disagreed with the idea of State control, stating that it was necessary to control the whole of the Australian export or none at all.


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18, Stanley Street, Liverpool.
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Mr. Thomas, Bunyip, favored Federal control. The Ministry offered the growers the opportunity of doing that which the growers had desired for many years to accomplish, but had been hampered through lack of funds. The Federal Board could demand self-registering thermometers, and to enter shipping offices with dignity, instead of having to wait in draughty passages. It was better to have a Board which would do things, even if mistakes were made, than to do nothing.

Mr. F. W. Vear (Healesville) said that as a grower and exporter, the difficulties of a Federal Control Board were insuperable. Apparently the idea was that the Board should consist of one man from each State. They must meet at some definite point. In each State conditions were continually altering. A ship was reported to be fully booked, and yet before sailing it was found 500 cases more had to be put aboard. Owing to a hailstorm and other causes, quantities were lessened. Fruit which was short in one State had to be made up in another. These things had to be adjusted immediately. Could the proposed Growers' Board have the knowledge to deal with special problems? He thought not. He was convinced that growers received full value for the fruit sent forward.

Mr. Bailey: Question!

Mr. Vear: Well, I believe it. Continuing, he stated that by sending to Brisbane or other places, there were firms there who got the utmost value for the fruit sent. The same applied in England. How often was this proposed Board to be elected? How long were the men to remain in office? If the election were annual, continuity would be broken, and if making the term five years there would be a difficulty in selecting men having the necessary knowledge and ability.

Mr. Bailey: There would still be the Government nominees.

Mr. Vear: Yes, and I wish they were not there. If a man exported a hundred cases this year, would you compel him to export a similar or any proportion the following year? Apparently the Bill was only to control the fruit offered for export, but there was no control over the grower. Of the proposed six representatives of the growers, he presumed the allocation would be one each from Victoria, N.S.W., South Australia, and West Australia, and two from Tasmania. What single Victorian grower had the requisite experience. Was he to be an Apple grower, if so what of citrus representation? We should wait and obtain particulars of the way the Control Bill was operating in New Zealand.

Mr. Bailey said that the proposed Federal Board would control sales in England: there were a number of small men who solicited consignments from Australia, but directly they received any considerable quantity they had to send it to the brokers to sell for them. The Board desired the competition of these men in buying rather than in selling. The Board would find out the men most capable of handling the fruit on the other side, who would hold it, if necessary, in case of glut.

Mr. Vear: The account sales will determine that point. If your returns are better than mine, no more fruit goes to the man who sends poor prices. This was the natural process of elimination. It was the growers own fault if he fell in every time. Mr. Vear continued stating that we were working at the wrong end, the idea being that we should lessen the cost of production, which would assist in placing the industry on a sound footing. The proposed Board would add to the growers' cost.

Mr. Carne (Pakenham Upper) said that the Act, as drafted, would prohibit the f.o.b. sales without the authority of the Board, and would interfere with the liberty of the grower.

Mr. W. E. James (Harcourt) opposed the proposed Bill. He doubted whether they could get six representative growers capable of carrying out the duties of the Board. Because a man was a successful grower did not give him capacity to go on the Board. The principal thing was to reduce the cost of production, and to do their business through experienced agents. He would not like to see Mr. Bailey on the Board. (Laughter.)

A Voice: How about yourself?

Mr. James: Worse still. (Laughter.)

Mr. F. H. Burbury, Secretary, stated that, speaking as a business man and a non-grower, the proposed Bill


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was undesirable. The Board must meet often if the work were to be done properly. What grower could afford the time to be away from his business for this purpose?

Mr. J. H. Lang said that as a Chairman he had occupied a neutral position, but desired to make his attitude perfectly clear. It had been said that the Act was based on the New Zealand lines, but he found two essential differences. In the latter it was provided—(1) That each grower was entitled to vote, (2) any grower could retire if the conditions were not approved. Neither of these reasons were in the Australian proposals. Summarised, the proposal amounted to a compulsory co-operative association, consisting of nine directors, six of whom would be elected by the shareholders, and three over whom the shareholders would have no control. As regards the scheme, it was unnecessary and impracticable. Unnecessary in this regard, that the carriage on shipboard was a most difficult problem. Growers could produce the fruit all right, and had every facility at present for export. The Board could not assist in the matter of ships' conditions, nor the arrival at destination. The suggestions had been made in the covering letter that it might be necessary for cool store on the other side. He did not know who drafted the letter—it was signed by Mr. Mulvaney: but men with far greater experience had turned down that idea twenty years ago. If the buyers in England knew that there were 100,000 cases in cool store, and 50,000 cases arriving, buyers bought warily and prices were not likely to rise. Also the scheme was impracticable, as they could not get the right men from the different States.

It had been said that the butter producers have accepted similar proposals, there was no comparison between the butter and fruit industries.

Twenty years ago a former Minister for Agriculture (the late Mr. Graham) had made efforts to obtain control of the fruit export trade, and to deal with it on the same lines to butter, but the growers had opposed the scheme as the conditions were not comparable. Reference has been made to dried fruit control, but here conditions did not apply as the season for selling extended practically over the twelve months. Further, the production of dried fruits was in a comparatively limited section of the continent, whereas fresh fruit for export was produced over the length and breadth of the continent. The only point which had apparently been made in support of the proposal was that the Board would eliminate the weak agent in London, who is unable to deal with the quantity sent to him. This matter should rest with the grower, otherwise it was like using a steam hammer to crack a nut. Responsible agents should be used as previously. Necessarily they should be paid for their work. Any added expense which would be incurred because of the formation of the Board would have to be paid by the growers. Was it worth while? He did not think so. The present system was the best they had been able to evolve. Conditions now were better than when export was started. It was better to progress sanely by co-operative and individual effort rather than by Government control, for a Government control was hampered by red tape, and progress was stultified. The results of the Queensland Compulsory Fruit Control system was apparently not working as smoothly as hoped. There appeared to be friction. One man was prepared to go to gaol rather than obey the behests of the Control Committee. We have not much to gain by the new system, concluded Mr. Lang, "but we have very much to lose."

Mr. Vear moved that, in view of the difficulties associated with the proposals, the matter be deferred for six months, or until such time as we have a report from New Zealand.

Mr. H. E. Wilson (Harcourt) seconded the motion, which was carried.

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## VICTORIA MARKET.

### Daily Opening Opposed.

Representatives of the Market Gardeners' Union, the Metropolitan Fruitgrowers', the Wholesale Fruit Merchants', and the Retail Fruiterers' Associations have disapproved of the City Council proposal to open the Queen Victoria market every morning, instead of three mornings a week.

A resolution favoring the opening of the market three mornings a week, as at present, was decided upon.

---

Strong protests are being made by growers against the proposal to increase the duty on Swedish wood wool.

## VICTORIAN FRUITGROWERS.

### Annual Conference to be Held at Echuca.

### Bright Programme Arranged.

THE Annual Conference of the Victorian Fruitgrowers' Central Association will be held at Echuca, a thriving town on the River Murray, about the middle of May next. A cordial invitation was received from the Borough Council and the Echuca Chamber of Commerce.

The agenda paper contains many important items for consideration. The social programme includes a trip to the Torumbarry Weir, where work is proceeding in connection with conserving Murray waters. There will also be a trip around the Bamawm Irrigation Area (citrus): a welcome social evening is being arranged.

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This trip should prove of great educational value. Doubtless there will be a big response on the part of growers to the invitation to attend, for visitors as well as delegates are cordially welcome.

* * *

This trip to Echuca should do much good, providing, as it does, a rallying point for the representatives of the fruitgrowing industry in Victoria.

Such conferences do much more good than is represented by the resolutions passed. There is a happy social intercourse; growers get to understand each other better, thus smoothing out difficulties which might otherwise prove to be obstacles to progress: One's vision is enlarged and sympathy widened by the requition of the difficulties through which others are passing.

There was a whisper of a suggestion recently that the Central Association had passed its period of usefulness, and that it would soon disband. This would be a colossal error. There must always be a body of growers in existence ready to speak

on behalf of the industry. During the many years of its existence the Victorian Fruitgrowers' Central Association has performed service of very great value to growers, and it is to be hoped that the forthcoming Echuca Conference will definitely establish in the minds of growers the utility of the organisation, and the necessity for loyalty and wide vision in maintaining its existence.

### FRUITGROWERS' COOL STORES ASSOCIATION OF VICTORIA.

The quarterly meeting of the Fruitgrowers' Cool Stores Association of Victoria was held on February 19th at Melbourne. Mr. R. M. Finlay (Diamond Creek) presided over a good attendance.

**Long Distance Thermometers.**—It was decided to ask the Minister for Customs for the promised reply regarding the request for the installation of long distance and self-recording thermometers on ships carrying fruit.

**Pears for Factories.**—A resolution was adopted that the Prime Minister for Customs be advised that the Association deplored the fact that Williams and Keiffer could not be sold to the factories for processing this season.

**Royal Agricultural Show.**—The following recommendations were adopted:—(1) Design for decoration of pyramid not to exceed two feet above the pyramid, (2) to adopt the Sydney scale of points for judging pyramids; (3) fruit not to be replaced on any exhibit during the Show, and that the Royal Agricultural Society be requested to make provision for a prize of £5 for the exhibit which held up best until the Show closed.

**1925 Conference.**—Suggestions as to time and place of meeting invited for consideration at April meeting.

The
North and Midland Counties of England
Are directly served by
THE PORT OF HULL
Every modern facility for prompt handling of fruit.
Docks and quays provide for quick discharge of cargoes.
Sales held daily during the season.
Express train service to all parts of England.
Australian Apples Sold at Hull in previous seasons brought the highest prices.
For further particulars apply to
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### Horticultural Division Active.

The educational activities of the Horticultural Division of the Victorian Department of Agriculture are much appreciated by growers. To Better Farming train there was recently added a section dealing with fruit matters—viticulture, citriculture, grading and packing Apples, Pears, etc., together with educational exhibits regarding pest control.

The fruit packing classes conducted by the Division have done a vast amount of good. There have been more requests for this class of instruction than the Department could supply. This would appear to be an avenue for increased expenditure, which would be of economic value to the community.

The division of the State into citrus areas, and the appointment of citrus supervisors enables this important section of the industry to receive greater attention than has previously been possible.

The Superintendent of Horticulture (Mr. J. M. Ward) is ably supported by his officers in the handling of the many duties which devolve on the division.

### Fruit Shows.

Successful Shows have been conducted in several fruit producing districts of Victoria, Somerville, Diamond Creek, Pakenham, Wandin, Croydon, Red Hill.

The fruit was of good quality: there were also excellent exhibits of vegetables and flowers.

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(GERMANY).
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And Sohn,
Fruit Brokers . .
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(GERMANY)
Established 1863.
Largest receivers of Australian, Tasmanian, and American APPLES.
Foreign Apples a Speciality.

The Shows arouse considerable local interest, and attract many interested visitors from the city. The Show Committees and their hard-working officers are to be congratulated on the results of their efforts. Local pride is stimulated, and the districts concerned receive a favorable advertisement.

The sale of fruit in cartons at Diamond Creek provided a valuable object lesson. About 4lbs. of fruit were neatly packed in the carton, and the price was 1/-: they sold like "hot cakes." The idea is worth following up commercially.

## Cup for Competition.

**Enterprise by White & Son Ltd., to Encourage Better Grading and Packing.**

On this page we show a picture of a magnificent cup standing 18 inches high, and 12 inches across, valued at £15/15/-, which has been presented through Messrs. Parnham Pty. Ltd. by the "White Service" (Messrs. White & Sons Ltd., Hull, Liverpool, and London) to the Red Hill and district Agricultural and Horticultural Society for competition amongst the growers in the champion section at their fourth Annual Show.



*Cup for Competition for Red Hill District.*

The cup is to be presented to the winner of the champion section who is judged to have packed the best three cases of different varieties of Apples for export, and before it becomes the permanent property of any one grower, it must be won by him on three occasions—not necessarily in successive years.

Messrs. White and Son Ltd. are to be congratulated on their progressive enterprise, and their encouragement of the better grading and packing of Australian fruit.

# Queensland.

**Mr. Rowlands' Death Deplored : Marketing Problems, Committee of Direction Attacked : Italians in the North : Cultural Hints.**

(*By Our Correspondent*)

### Death of Mr. Rowlands.

EXPRESSIONS of regret are heard on every hand because of the untimely death of Mr. Rowlands, Fruit Marketing Instructor. The deceased was extremely popular because of his fund of practical knowledge and his manly, winning personality.

### Marketing Problems.

The Committee of Direction is meeting with considerable criticism. A League of Freedom has been launched, and is growing in strength. At a meeting in Bowen, at which over 100 growers were present, the points for and against the methods of the Committee of Direction were considered. Mr. Chataway, representing the C.O.D., outlined the work which the Committee had done and was doing; much had been accomplished even in the 13 months the Committee had been operating: they were committed to the policy of limitation of agents.

Growers vigorously attacked the Committee of Direction, stating they had been swallowed up by the Committee, and were servile peasants as in Russia. Instances were given regarding faulty service by the Committee, and unsatisfactory returns. Resolutions were carried—(1) affirming the principle that a farmer's produce is his own property until it is sold by him or his agent, (2) objecting to the one-floor system of marketing produce, as conducted by the C.O.D., (3) objecting to the limitation of agents in Sydney and Brisbane.

At Stanthorpe fully 500 persons, the majority being fruit producers, met on February 27, under the auspices of the League of Freedom.

Rev. R. Kerr, speaking as a grower objected to the Committee of Direction on principle; there was much dissatisfaction with the Committee in the Granite Belt. The powers of the Fruit Marketing Act were too wide, and left the door open for tyranny. A Frankenstein monster had been created. He moved:

**That this meeting of producers in the Granite Belt is strongly opposed to the present policy of the Committee of Direction.**

Mr. P. T. Shaw, in seconding, said the C.O.D. had violated business principles.

Mr. Grassick, a representative of the C.O.D., said that the Committee had started with a loan of £650, now it had a credit balance of £2,000.

Mr. D. Pfrunder, a member of the Committee of Direction, said they were not out to attack individual agents, but were attacking the system and certain vicious practices.

Mr. J. Corbett, of Nundah, near Brisbane, stated his returns from the C.O.D. were:—January 8th, 1925, 10 bunches of Bananas (66 dozen), return to grower a debit of 9d.; December 18th, 1924, 36 bunches (233 doz.), return 11/11; January 20th, 1925, 26 bunches, return 1/3, after deducting stamp levy of 6d.; December 12th, 1924, 39 dozen, return 2/-, deducting stamp levy of 3d. The Tomato floor conducted by the Committee was a deplorable failure; he saw 5000 cases stacked, and the juice running out of the cases.

Mr. F. M. Ruskin, a member of the Council of Agriculture, said he had no brief for the agents, they were a necessary evil. The C.O.D. did not fulfil the wishes of the Queensland


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fruitgrowers with regard to co-operation. It was like the co-operation of prisoners tied to a chain. The levies which to-day were ½d. would be 1d. to-morrow, and probably 2d. the day after. The wages bill of the Committee was £300 per week. Instead of the levy funds being used entirely in the interests of the industry, a publicity officer, Mr. Airey, had been appointed. The manager's (Mr. Ranger) salary had recently been raised from £750 to £1,000 a year. The Committee of Direction was the biggest and most unsuccessful fruit trading establishment in Queensland. The League of Freedom would fight to the last ditch until it obtained freedom.

The resolution was carried by 137 to 87, the announcement being received with cheers and the singing of Rule Britannia — "Britons never, never, never will be slaves."

**Influx of Italians.**

The flow of Italian immigration for the North Queensland canefields shows no sign of lessening. This matter of alien immigration is attracting serious attention here.

**Seasonable Hints.**

The losses which occur in citrus fruit sent to southern markets would be largely avoided if growers used every care in handling and packing: gloves should be used in picking: the fruit should be clipped, not pulled from the trees, and "sweating" the fruit for 10 to 14 days before packing. It is because of skin injuries that mould develops.

Great care is also necessary in handling and packing Custard Apples, Pineapples and Bananas.

By clean cultivation weeds are kept down, the soil moisture is conserved, and many soil pests are destroyed. Early plantings of Strawberries should have all weeds removed. There is still time for later plantings of Strawberries—a profitable crop.

If the planting of deciduous trees is contemplated, the land should be got ready now, turning the ground over to sweeten it.

Where the land is deficient in nitrogen and humus, cover crops should be sown for turning under in the spring, at the same time giving the ground a dressing of super.

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## DOINGS IN QUEENSLAND.

### Committee of Direction States Its Case.

**(The Editor, "Fruit World of Australia.")**

Sir,—On behalf of the Committee of Direction, allow me to state the other side of the case re the League of Freedom, as put in your March issue by your Queensland correspondent, writes Mr. P. Airey, Publicity Officer of the Queensland Committee of Direction.

1. The present "Fruit Marketing Organisation Act," to which the League of Freedom is so violently opposed, was not foisted on the growers by the Government, as Southerners fondly believe, but was passed by the Government in response to the urgent demand of fruitgrowers themselves. Representative fruitgrowers suggested the principles and outlines of the Bill, and all the Government did was to put these principles into a Bill and put that Bill through Parliament. If there be virtues or defects in the Act, they are the outcome of suggestions emanating from the fruit producers themselves.

2. The opponents of the measure profess to be desirous of merely amending the Act, and not destroying it. The man who hamstrings a horse does not kill it, he merely cripples it, and renders it useless. That is all the enemies of the Act propose. They are perfectly prepared to let the Act live, if only the core be eliminated. Clause 7, which confers the vital powers of levy; of declaring one floor; of limiting agents, is to be emasculated by allowing a handful of growers to call for a ballot, as soon as the Committee (or Executive) proposed to exercise its powers. To make this ballot or referendum of any value, an educative campaign would have to be opened, otherwise many growers in remoter districts would vote in ignorance, and do nothing but mischief. Besides this, the delay thus entailed would tie up the Executive at a vital moment, and practically nullify its powers. The enemies of the Committee of Direction are well aware of all this, and have laid their plans accordingly.

3. As to the alleged object of the Act being "the extension of fruitgrowers' interests by co-operative methods"—this is indeed highly amusing. The Committee of Direction itself is a purely co-operative body elected by the growers, and the growers' representatives, and running things for itself without any outside interference. Under the old system, before the Marketing Act came into existence, where everybody had absolute freedom to do as he liked, co-operation for the mass was only a name. To-day, it is a strenuous, vital thing—hence the opposition.

4. Your correspondent says quite truly—One objective of the League is the "abolition of the compulsory powers of the Committee of Direction of Fruit Marketing." That is so. Anybody with any experience of the farming class knows that co-operation on a voluntary basis is just a dream. Without compulsion in this

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*Solicit Consignments*
The High Standing and Long Experience of this Firm is a Guarantee that the Best Interests of Consignors will be conserved.

State, co-operation is still-born. It comes into the world with the death-dew on its brow.

To a Queenslander who understands the position, it comes as a joke of the first magnitude, to read that the conveners of the League of Freedom are not up against the Committee of Direction, but only "demand that its powers be modified and limited." The only powers they want to modify are the only ones that make the Committee of any use in the community. The amendment they desire is one which, if applied to Parliamentary or municipal government, would reduce their administrative functions to a blank. In Poland's self-governing days any man in the Diet could block all legislation by simply calling out "Veto." Under the League of Freedom scheme a few men have only got to sing out "Referendum" or "Ballot," and the Executive is brought to a full stop. Beautiful scheme! A truly beautiful scheme, and so ingenuously conceived! Naturally the vested interests whom the co-operative activities of the Committee of Direction have so sadly offended, are wishing "Good luck" to the League of Freedom.

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*Reference—Satisfied Growers in all States.*

Mr. W. S. Arnold, Manager of the Soldiers' Settlement at Kurrajong, N.S.W., visited the Murray Valley Citrus Areas during February and early March. He writes:—"Had a good time, and a most educational one. I am grateful for your letters of introduction and the courtesy extended everywhere in Victoria and South Australia.

Fortune Teller: "You are married, and you love your husband. But I see a dark woman between you. She follows your husband everywhere!"

Client: "Heaven help her! My husband is a postman!"

# New South Wales

## MURRUMBIDGEE IRRIGATION AREA.

**Leeton (18/3/25).**

**Peaches.**—The harvesting will finish by the end of the month. The Pullar's Cling and Salwey freestone are practically the only varieties now remaining on the trees. There is not likely to be any more plantings on the Areas of the Salwey, because it is not favoured by the canners, nor is it a favorite for the fresh fruit market. Pullar's also is destined to remain stagnant as regards further plantings. The Elberta is likely to be a Peach of the past, as the Leeton cannery, by the price it offers the grower, is discouraging this big freestone. Indeed, it is on the cards that the Government cannery will not process this Peach next season.

The profitable Peaches to grow in this district (until we have the proper network of railways to dispose of fresh fruits) will be those suitable for the cannery at Leeton. The supplies by the grower in this direction for a twenty-acre orchard might fairly be distributed from the Cling varieties as follows:—Tuscan, Levis, Selma, Palora, Sim's, Phillips', Goodman's, Golden Queen, Pullar.

This selection is also handy for harvesting operations of the grower. There is likely to be a large quantity of the Palora Peach being planted up. It is against the Government policy to recommend any particular variety of plantings, through either the cannery manager or its fruit experts, as it has got into trouble more than once over such recommendations.

**Apricots.** — Whilst dealing with marketing, it is safe to say that on a 20-acre orchard it is worth while always having from two to three acres of Trevatt Apricots for the cannery or fresh fruit market.

## LEETON CANNERY.

The matter of the assistant manager will probably be held over till next season. The Irrigation Commission should have no difficulty in appointing a man to this position from its own cannery staff. There are several foremen at the factory that have been employed there for several seasons, and if there is no incentive of promotion, then it means that gradually an inferior staff, with lack of "esprit de corps," will be the result. The position of drift on this matter is dangerous—it is not a proper kind of administration by the Irrigation Commission, nor is it fair to the cannery manager.

The cannery has not been able to take in all the settlers' fruit, particularly the Pullars, and as the cannery has contracted to take all settler's supplies of Peaches, there must be an item of loss to the factory.

The Government is very much to blame for not seeing that the necessary money was earmarked for expenditure in extending the cannery. There has been work for a further two or three hundred girls, but there was no room for them, either at the factory or the dormitories. This is neither giving the cannery or its manager a proper chance. These remarks are not inspired—they are, however, the candid truth.

The male cannery employees held a couple of short strikes a few days ago. They were silly strikes, and meant a loss to the cannery of several hundreds of pounds. The Irrigation Commission must be commended for its attitude in threatening to close the factory for the season, as its firmness brought the men to reason.

The matter of the erection of a cannery at Griffith is still in the negotiation stage. On that feature and a system of collection of reliable statistics I shall have something to say next issue.

## CURLWAA IRRIGATION AREA.

The Minister for Agriculture (Chairman of the Water Conservation and Irrigation Commission), quoting from a report received by him as to the Curlwaa Irrigation Area, stated on February 27th that the results of the Apricot crop have been very satisfactory and have dried a fine sample of fruit both in size and color. The same result is expected from the Peach crop.

Citrus trees are looking remarkably well especially some of the groves which have not been up to expectations in previous years. It is noticeable with Orange trees in this district that manuring has given good results as compared with those not so treated. The returns for last season were excellent and good prices were realised.

The vines are looking well and give promise of a large yield, as are also other fruits such as Pears and Apples.

The area is free from most diseases and the settlers generally are making every effort to keep it so.

Farms taken up during recent years are coming on well, the vines and trees giving promise of good crops.

# Australian Apple Export.

### 2,000,000 Cases Will Probably be Shipped.

Contrary to earlier expectations, the quantity of Apples being exported is likely to be up to normal.

**Tasmania** is making the fullest use of the plain grade, and thus her quantity will probably be about 1¼ million bushels at the finish.

The effect of a Five Crown and Rome Beauty crop, the first for five years, is just beginning to make its weight felt in **Victoria**, and the total from this State may reach about 400,000.

**South Australia** is looking eastwards for local supplies, and will ship about 50,000, and **Western Australia** about 300,000, so that when the late shipments are complete, about 2,000,000 cases will have been moved.

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## THE SUGAR POSITION.

### Jam and Canning Industries in Danger.

Speaking at the Wandin and Ringwood Shows, Mr. W. H. Everard, M.L.A., spoke in strong condemnation of the present sugar position.

Mr. Everard stated that the consumption of jam in Australia was steadily decreasing, although the population was yearly increasing. In 1912 there were 85,889,929 lbs. of jam manufactured, the population of the Commonwealth being 4,746,801 persons. Yet in 1922-23—ten years later—the jam manufactured had dropped to 66,971,456 lbs., although the population had increased to 5,749,809 persons. This represented a serious reduction in the quantity of fruit being used.

Continuing, Mr. Everard stated that there was serious danger of important jam and canning interests being transferred from Australia to South Africa, where sugar was cheaper.

---

The embargo in New Zealand against the importation of Australian trees has been lifted, and in place thereof 25 per cent. duty has been put on.


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| Tasmanian Dehydration Pty. Ltd. Bridgewater two plants. | Apricots Prunes Apples |
| Charles Martin, Yackandandah | Prunes |
| Swallow & Ariell Ltd. Port Melbourne. | Carrots Turnips Cabbages, etc. |
| Woorinen Co-op. Pack. Shed, Woorinen | Sultanas Raisins etc. |
| Aurora Pack. Co. Pty. Ltd., Irymple. | Sultanas Raisins etc. |

**D. J. LATHAM**

**157 Queen Street,**

Melbourne, Australia.


## BATTLERS AND SIDELINES.

### This is Where You Smile.

"Battlers," said Avabotle, the Yougo-Slab philosopher (B.C. 10) "are roughly divided into two classes—the Brawny and the Brainy."

I personally disagree. I've found them, as a rule, a mixture of the both, i.e., and e.g., fifty-fifty, with p'raps a leaning towards the Scrawny.

Maybe I'm wrong, but I don't s'pose I'll go down to posterity as a philosopher or up to Yougo-Slabia as a visitor.

(That's just a quilt one back at old Avabotle!)

But you must admit times have changed since the "good old days," when the tom-tits'd fly out of a cocky's ziff if you clapped your hands loudly under his whiskers.

Pushing a plough is not a job, I'll admit, that exercises a man's "gray matter," as one might say.

Nor, again, to get reminiscent, when the temperature's 119 in the water bag a man's got to have brawn to stick it, and not find a weak excuse for a strong inclination to knock off and visit the local rubididub!

But nowadays if a man wants to make a block pay, he's got to have a side line and be scientific.

A cobber of mine on the Murray, for instance, grows cucumbers six-foot long!

Incredible, you say? Certainly, give him his due, but his method is simple and scientific, don't forget.

I don't suppose you even knew that the only thing that stops a poor cucumber growing longer than six inches short is the trouble it's put to pushing itself along the ground—I didn't till I was shown.

Don't forget a cucumber's not a caterpillar, and even the weight of a short fat prickly one makes the job of pushing itself even six inches along the ground a cucumbersome one, to say the least, and I've never seen one longer.

And its only a brainy rural battler like my cobber that'd have noticed his friendly little cucs battling their cucumberous way over the soil.

There's poetry in situations like that tho' I don't want to get sloppy about it, but it was a piece of poetry that gave the cobber the big idea.

It's by old Avabotle, apropos of the same vegetables, and pathetic, too—

A little cucumber, just one of a number,
Was stunted quite early in life;
"Of all rotten jobs—this fills me with sobs,"
He groaned to his stout stumpy wife.

"Won't someone with sense, train me on a fence,
And take a cute cucumber's cue.
The reason I'm stumpy? The ground's so d—— bumpy,
I can't get a move on—could you?"

That decided him. He grew his next cucumbers along a six-foot trellis.

Result—the pathetic, but gallant little fellows, freed of the debilitating necessity of heaving themselves up one sod and down another, keep on growing till they reach the ground!

That's all there is to it, except that if you want to buy any he sells 'em by the yard!

---

## AUSTRALIAN CONFERENCE OF FRUITGROWERS.

### Brisbane Conference Unlikely.

Unless favorable replies are received from the several State Associations, the proposed Australian Conference of Fruitgrowers at Brisbane will not be held this May.

The N.S.W. Association finds with great regret that financial stringency prevents renewal of the affiliation this year. So far only Victoria has selected delegates. Important items for consideration were sent forward by the several State Associations—quite sufficient to justify the holding of the Conference apart from the fact that delegates would have an opportunity to study at first hand the programme and prospects of the Committee of Direction of Fruit Marketing.

There is a feeling that there is a certain amount of overlapping because of the existence of the Australian Fruit Council.

The matter of holding the Brisbane Conference in 1925 is in the hands of the State Associations.


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*"There's Money in it!"*

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## FRUIT SALES IN ENGLAND.

### Strong Comments by Mr. A. J. Arnot of Sydney.

### Drastic Changes Suggested.

Mr. A. J. Arnot, a business man and fruitgrower of Sydney, N.S.W., recently presented a report to the N.S.W. Fruitgrowers' Association. After giving details regarding his representation at the Imperial Farmers' Conference in London, Mr. Arnot continues,—

While in London I made it my business to enquire into the marketing of Australian Fruit, and in one particular case traced the history of a consignment from Tasmania, No. 325, Glen Parva Jonathans 2¾. I found that this case had been purchased at the City Markets for 11/-, was sold to a fruit merchant at Covent Garden for 17/-, who sold it again to Alexander Massey & Co. Ltd., Union-street, Glasgow, for 25/-, and the Apples were retailed to me at 10d. per lb., about 34/- per case. I had the Apples which I bought photographed, and you will notice from the print submitted that they are covered with black spot, and are a very poor lot. It will be recognised from these figures that the grower only receives 1/6d., as 9/6d. is swallowed up in expenses, and the consumer pays 34/- per case.

[Then follows a paragraph alleging the existence of a ring in London.]

The high ideal adopted by the British Government for many years past of not interfering with private enterprise is no doubt correct as long as legitimate private enterprise and competition exist, but when these are smothered by the existence of combines, it is certainly time for Legislative action.

In conversation with some of the fruitgrowers of London I was informed that the New Zealand case is preferred to the dump case sent from Australia, and that as a rule New Zealand fruit is more satisfactory.

Generally speaking, fruit is very dear in London. Apples which we would consider only suitable for pig feed were being easily sold at 10d. per lb. during June, July and August; Pears at 1/6d. per lb.

I strongly advocated that Australia House should possess its own floor for the receipt of Australian Produce, charging producers 7½ per cent. for selling, and deal direct with the fruit shops on a cash basis. This method was approved of by the authorities at Australia House. In any case, some drastic change must be made, so that the producer and consumer can have a fair deal.

The best system I noted in England for the distribution of fruit economically, and at fair prices, was controlled by a firm at Southampton, where they own enormous sheds for the receipt of fruit, which is sold by auction. Unfortunately none of the ships from Australia call at Southampton.

The arrangements at Covent Garden are a perfect disgrace to a big city like London. They certainly would not be tolerated in any Australian city.

---

**A New Peach.**—We recently received samples of the new Peach raised by Mr. Jas. Mowat, of Kyabram. It is a large Peach, highly colored, like the Pullar's Cling, tree strong growth, heavy bearing, excellent for canning, and a freestone. The texture is firm, and there is a slight color around the stone. It comes in just when the Williams Pears are finishing, and before the Nicholls' Orange Cling. The Peach has been tested and favorably reported at the Kyabram Factory, and altogether reflects great credit on Mr. Mowat's efforts.

---

## LEARN TO SMILE.

It's easy enough to be pleasant
When life flows by like a song;
But the man worth while is the man who will smile
When everything goes dead wrong.
For the test of the heart is trouble,
And it always comes with years;
And the smile that is worth the praises of earth
Is the smile that shines through tears.

# SOFTWOOD CASES

(IMPORTED)

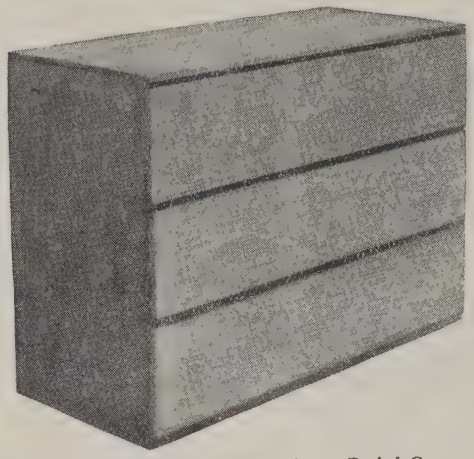
*Cut to Australian Standard Sizes*

**DUMP BUSHEL** with one piece top and three equal piece side

**UPRIGHT BUSHEL** with one piece top and three equal piece side

**DRIED FRUIT CASE** with one piece side and two equal pieces tops and bottoms

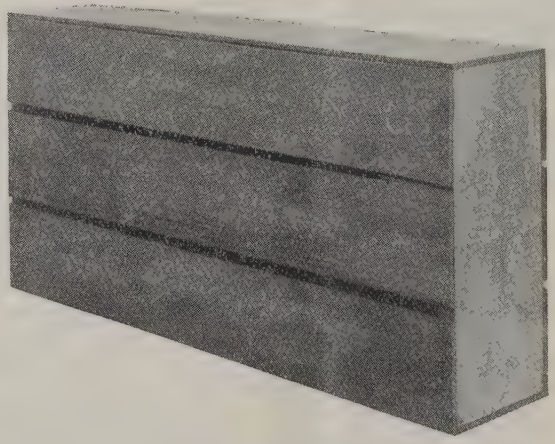
**CANNED FRUIT** with one piece side and two piece tops and bottoms



Australian Apple and Citrus Dump Bushel Case.

## SOME ADVANTAGES IN FAVOR OF IMPORTED CASES

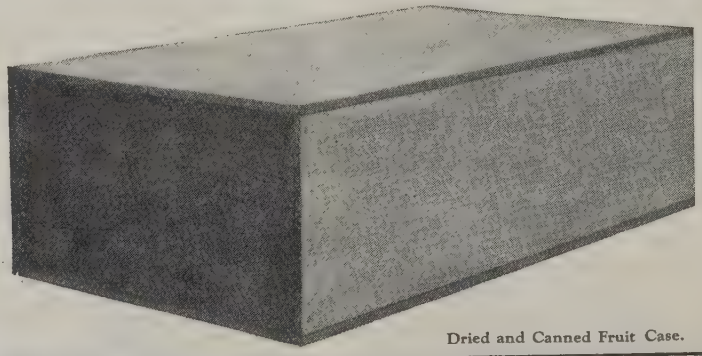
(1) *Full drawback of duty allowed on all cases exported*
(2) *1/3rd less freight than on Hardwood cases*
(3) *25% rebate on rail freight for full trucks*
(4) *All timber cut to exact sizes making it an easy matter to assemble a symmetrical case*
(5) *Every piece of timber fit and ready for use, thereby eliminating waste*
(6) *Can be supplied in shooks, or made up and branded*



Upright Bushel Case with Centre Partition.

**Particulars from the Largest Importers**

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Dried and Canned Fruit Case.

52 Market Street,
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ADELAIDE

# Cultivation of the Orchard.

W. Milligan, Manager, Soldier's Settlement, Kentucky.

CLEAN CULTIVATION during the growing season is the recognised practice in all orchard districts in Australia. Notwithstanding this statement, and judging by the appearance of some orchards, the beneficial results are not yet fully realised. To get the best results the cultivation must be carried out thoroughly and at the right time.

During the spring, and again during late summer, in average years the weather conditions are such as to quickly dry out the moisture from the soil. These periods are vital to the growth of the trees. During spring from the bud-bursting stage until the fruits have set is the tenderest time of the tree's life; while about January a second growing season is usually experienced, and later, in the case of Apples, Pears and citrus, the conservation of soil moisture is at times necessary to the proper maturing of the fruits. Thus writes Mr. W. Milligan in the "Agricultural Gazette of N.S.W."

The benefits of a **loose soil mulch** from three to four inches deep in regard to the conservation of soil moisture during very dry periods is widely recognised under Australian conditions. Constant cultivation preserves this loose soil mulch during dry periods. As a general rule it is best to cultivate the orchard while there is plenty of moisture in the soil. The idea is to cultivate after every good shower. Allow the land time to absorb the rain thoroughly and then cultivate as soon as the surface is firm enough to carry, and before the moisture has time to escape.

In addition to conserving the soil moisture and making it available to the trees throughout the growing period, good cultivation also destroys weed growth and warms and

**aerates the soil,**

thus setting up conditions most favourable to the beneficial soil bacteria. Well directed cultivation maintains the soil in a condition favourable to root growth, improves both the mechanical and physical condition of the soil, makes available plant food, and helps to keep many of the fruit pests in check. Too frequent cultivation must be avoided, however, as it may cause a rapid loss of humus, the effect of which will be a poorer physical condition of the soil.

In many of our orchard districts there is a sufficient growth of weeds between the months of March and August during average years to keep up a natural supply of organic matter in the soil. In other districts, however, the problem is more difficult, the growth of weeds being insufficient to supply vegetable matter to the soil, while the growing of green crops to be ploughed in must be done with caution, as the cover crop may make too great demands on the limited supply of moisture in the soil, and the crop will suffer from lack of moisture.

### Hillside Orchards.

Hillside orchards require a carefully thought-out system of cultivation. Where the slope of the land is steep there is always danger of washing during sudden heavy rain storms. The practice of ploughing across the face of the hill acts beneficially when the rain is steady, but is risky owing to the surface water collecting in one place and then breaking over, causing a scouring of the surface soil.

The first consideration should be to avoid all surface water from grass lands, hillsides, and cultivation, from entering the orchard. If considered necessary a wide shallow surface drain say 3 to 4 feet wide and not deeper than 3 to 4 inches at the centre with gradually sloping sides should be run towards the lowest level and grassed over. Avoid deep drains with sharply cut sides owing to the liability of deep erosions. Provided the surface of the land is kept level, shallow furrows can be put in after any fine cultivation during the spring and early summer.

Ploughing during the period of heavy rains could be arranged so that each land will only carry the water falling on its own area. The plan is to arrange the work so that the furrows will not have to carry the water for any distance.

### Ploughing.

The foundation for a good soil mulch is a deep ploughing carried out while the soil is in good condition after the winter rains. The land should be allowed to stand until it has had time to drain thoroughly and is still moist. The months of July and August are usually the time when this operation is best carried out in the cooler districts, i.e., as soon as the winter pruning and spraying are completed. In the warmer districts the ploughing should be completed at the end of July. By ploughing early the weeds are turned under whilst soft and sappy, and when there is sufficient moisture in the soil to ensure rapid decay and the subsequent breaking down of the organic matter to form humus. Weeds are also turned under more easily at this stage of their growth.

The width of the cut should be regulated so that each sod will rest lightly and evenly on the other and allow of all weeds and surface rubbish being turned under and completely buried. In finishing off, the headlands should be left neatly ploughed to at least fifteen feet from the last row of trees. The headland on which the horses were turned during the ploughing should be treated by striking out in the centre and completed to a sufficient width to give a neat finish to the work.

To keep the orchard in good tilth a certain amount of hand labour with the hoe will be necessary. This can be minimised greatly by ploughing up as close as possible without causing injury to the trees either by striking the trunks or tearing out the lateral branches. To avoid serious injury to the lateral roots the plough should be raised sufficiently when ploughing near to the trees.

### After Cultivation.

The implements generally used to maintain the soil mulch are the tine-harrow, springtooth cultivator, and disc cultivator.

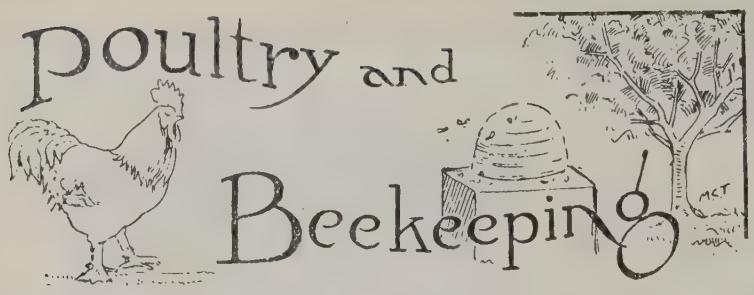
Where the land is moist and friable the tine-harrow does efficient work and does it quicker. The springtooth cultivator stirs the soil without inverting it, and is the best to use when the soil becomes very dry and is certainly without compare on light soils. It stirs and brings about a division of the soil with a proportion of coarse and fine particles, allowing the finer particles to lie underneath.

The disc cultivator is splendid for keeping excessive weed growth in check. Where the weed growths are coming away quickly it is equal to the plough for destroying the weeds if started early and it does the work quicker. On very light sandy soils the disc cultivator keeps the soil in a very fine state of subdivision and is liable to destroy the mechanical condition of the soil by too constant use.

Cultivation can be, and is occasionally overdone. Beyond retaining a loose soil mulch during the summer season and the destroying of the weed growths, cultivation is unnecessary and a waste of time and labour. Working land with any kind of harrow or cultivator while wet has the effect of setting it down, which destroys the condition of the soil. Harrowing land constantly, when dry, especially light soil, divides the particles very fine, and the first soaking rains will harden the surface and make another ploughing necessary.

---

**Fruit for Hamburg.**—Messrs. Wilhelm, Palmstrom, 64 Raboisen, Hamburg, Germany, are desirous of getting into touch with Australian firms, who are exporters of Apples. The following is an extract from a letter addressed to the High Commissioner for Australia in London by the British Chamber of Commerce at Cologne, Germany:—"The firm of Wilhelm Palmstrom is an old established one, having branches in Cologne, Hamburg, and Elberfield, and deals solely in fruit, vegetables and similar articles on a large scale. The British partner, Mr. Borrow, is well known to us, and we regard him as an absolutely honest and reliable business man, with a good knowledge




## Poultry Notes

### BREEDING DUCKS.

**Some Points to Remember.**

THERE are few more profitable breeds of poultry for egg production than Indian Runner ducks.

For capital required, management and quick returns they compare more than favourably with any other breed.

Any ordinary scrubby land will do, but a locality with a permanently running stream is preferable.

In timbered country, and with plenty of shade, ducks do not require much accommodation.

A good strain of runners will show a fair return in egg production, even in their fourth year.

Yards enclosed with four feet netting will be found suitable, and a lean-to up to 3' feet in height will provide all the shelter the adult ducks require.

Ducks are only subject to two diseases—roup and staggers.

In fox-infested localities they must be protected at night. Runners require plenty of green feed and grit.

In breeding, want of shade, unwise feeding, and watering are usually the causes that lead up to staggers.

If ducklings are reared in Australia in the winter and early spring, there should be little chance of an outbreak.

The trouble starts with the coming of the hot days.

Staggers may be caused by not keeping the water before the ducks all the time and in a cool place.

Water should be available to the ducklings first thing in the mornings, and the vessels should be deep enough for them to dip their heads under.

Food should be placed handy overnight, so that they can get it in the early morning.

Shade is imperative. The head of a duckling is very vulnerable to the effects of the hot sun.

Do not expose ducklings to the early morning sun, or allow them to get in any way heated before drinking.

Young ducks require rye, grit, green feed, and chopped up boiled liver or other meat to build up a strong constitution.

Always provide a run well protected from the wind. Ducks require a sheltered situation, with fresh cool water always before them.

### POINTS WORTH REMEMBERING.

Some signs of a good laying hen—short lean head, shallow skull, bright, round eye, and long broad back. A good layer is close-feathered, and a heavy feeder.

Cement floors may be used with advantage in chicken sheds. In making, mix 4 parts small stone, 2 parts sand, 1 part cement. The mixture should be spread 1 inch thick, allowed to set, and then brushed over with a mixture of 3 parts sand, 1 part cement just to fill up small holes. When dry pour hot tar on and spread it as thin as possible with a broom. The pens should then always be perfectly dry.

A tablespoonful of sulphur added to a pound of mash will be found beneficial to the birds—especially whilst moulting.

Separated and skim milk can both be used with advantage for fowls in their mash, and also for drinking purposes.

## Bee-keeping Notes

**The Relation of Stores to Brood Rearing.**

FROM experiments carried out at the Kansas Agricultural Experimental Station (U.S.A.) Mr. J. H. Merrill, writing in the "American Bee Journal," draws the interesting conclusions that colonies well provided with stores will maintain a maximum rate of brood rearing even during unfavorable weather conditions. This can probably be explained from the fact that whenever the bees maintain in the hive a proper temperature for brood rearing, the queen will deposit eggs. During cool or cold weather the bees maintain this proper brood rearing temperature by consuming honey and indulging in muscular exertions. In other words, heat is generated by work. When there is a sufficient amount of honey to supply a large number of bees at the same time, then it will be possible for them to maintain the optimum brood rearing temperature, regardless of what the outside temperature may be, such as is found during a cold spring. However, when there is only enough honey to supply but a small portion of the bees at a time, it would be impossible to maintain a brood rearing temperature unless the outside temperature approaches this mark. Second, the bees in those hives which are sufficiently supplied with stores will increase the amount of brood reared during periods when the weather prevents their going to the field. The reverse of this condition will be found to exist in those hives which are deficient in stores: Third, since those colonies which have an abundance of stores in the autumn rear more brood in the spring than do colonies which are not provided with stores, it will be seen that the postponing of feeding until spring is a dangerous practice. Fourth, there is a direct correlation between the amount of brood reared in hives insufficiently supplied with stores and the amount reared in those hives which have enough stores. Fifth, the most dangerous factor in postponing feeding until spring is that the conditions of those colonies with insufficient stores may mislead the beekeeper as to the necessity for feeding.

### DO MODERN METHODS SAP VITALITY?

It is worth while considering whither our present method of beekeeping is tending, says a writer in an exchange. The box hive and movable frames have had a past of only 60 years. Undoubtedly these are a vast improvement and a permanent gain. But they have made possible an amount of manipulation and interference at the hands of the overfussy and the narrowly practical which may be gradually lowering the stamina and vitality of domestic bees. They are fed with artificial foods, dosed with many drugs, supplied with strange combs; the queen, especially, is the object and victim of experiments manifold—forced to a fecundity unknown to those in a state of



# - 10 - EGGS A DAY from 11 Fowls during Winter

Facts are always interesting even to those outside the scope of any particular line. But, to those actively engaged therein, they are the things most sought after. The above is a definite and incontestable fact, and, to poultry raisers supplies proof positive that winter egg-laying is a thing definitely attainable. Just calculate what a profit 10 eggs a day from 11 fowls means at winter prices. You will then realise the worth of feeding your flock with "Karswood" as directed.

Karswood Poultry Spice (which contains ground insects) has made this possible. It will do the same for you, but it means starting now. Karswood acts naturally as a tonic, therefore it takes a little time. It is certain in its results, and the cost is negligible, being a half-penny per day for twelve birds. Below we give the actual testimonial, giving the fact stated in the heading above.

**"Dunedin," Jeeralong Mail, via Morwell, Gippsland, 6/11/23.**

"I have been using Karswood Poultry Spice for 6 months, and after a fortnight's use I have not been a single day without eggs. Previous to this, my birds, although well fed, simply would not lay except an occasional egg. They are getting exactly the same quantity and manner of food now as previously, yet for the past six months I have had 7-10 eggs per day from only 11 hens, and this through the winter months. I think "Karswood" is "great," and I now want to try "Karswood" Pig Powders, too, and watch results."

(Sgd.) MRS. V. SIMMONS.

## MAKE THIS TEST.

Go to your local Grocer, Storekeeper, or Produce Dealer. Get a 1/- packet of Karswood Poultry Spice. Give it to half-a-dozen of your birds in accordance with the directions on the packet. Do not expect immediate results. Karswood works naturally, not suddenly. It takes at least a fortnight or three weeks to produce results, but they are good and sure.

## NOTE THE ECONOMY.

1/- packet supplies 20 hens for 16 days.
2/- packet supplies 20 hens for 32 days.
13/- (7lb. tin) supplies 140 hens for 32 days.

## SUPPLIES.

"Karswood" Poultry Spice is obtainable from all Stores and Poultry Food Suppliers at the following standardised prices:

| | |
|---|---|
| ½lb. packet . . . . . | **Price, 1/-** |
| 1lb. packet . . . . . | **Price, 2/-** |
| 7lb. tin . . . . . | **Price, 13/-** |
| 14lb. tin . . . . . | **Price, 25/-** |
| 28lb. tin . . . . . | **Price, 48/-** |

*If your local dealer cannot supply you, write direct to "Karswood," Box 2138, G.P.O., Sydney, adding postage to the above prices.*

Key No. 025/2

nature, worn out before her life has half reached its term and then hustled off to make room for another. It is a question not at all fanciful or academic; whither is modern beekeeping tending?

### DWINDLING HIVES.

Bee-keepers who have noticed in some cases their hives gradually dwindling, have assigned many reasons for it, some holding the queen as responsible. Writing on the subject in the "Victorian Bee Journal," Mr. W. B. McIntyre, a prominent Victorian Apiculturist, says:—

"I have found hives dwindled down so small that a match box would hold them, and have introduced a queen into a small colony, or a divide, and have had a very profitable colony headed by the queen so rescued, which gave good service, at times heading the colony for 18 months. I never found a queen so dealt with fail, but I have only used queens I considered worth trying to save, so the cause must have been some trouble earlier which caused the dwindle. Of course, an old and failing queen would give an empty hive. So the reason of the downfall cannot always be placed to the queen."

## Pig Breeding.

### A Disease of the Ear.

A CONDITION has been noticed fairly commonly among pigs (write officers of the Glenfield Veterinary Research Station, N.S.W.), in which the most prominent symptom is a peculiar alteration in the carriage of the head, accompanied frequently by unsteadiness of gait. The disease is seen usually in young pigs, from a few weeks up to three or four months old.

The reason for the relative infrequency of occurrence in older pigs is possibly that young pigs are more prone to catarrh (which appears to be the forerunner of the condition), and that affected animals suffer such loss of condition that they die or are killed as "runts" or "bad doers."

**The Symptoms Described.**

The most characteristic symptoms are the abnormal method of carriage of the head and the interference with equilibrium and sense of direction. The head is twisted or rotated to one side or the other, so that one ear (the affected one) is depressed, such depression becoming more marked as the condition advances.

It is noticed that the animal when walking about tends to circle in one direction, this being towards the side to which the head is depressed. At times this tendency to circle is not apparent, but it is noticed that when moving the animal does so with an awkward gait, while the head is moved from side to side in an unbalanced manner.

Affected animals may also exhibit considerable difficulty in going straight up to the feeding trough, having to make several attempts before gauging the right direction. It has frequently been noticed that the condition is accompanied by discharge from the nostrils and eyes.

In advanced cases there are very apparent disorders of equilibrium, the gait becoming unsteady and somewhat inco-ordinated, and the animals may fall into the trough and be unable to get out again. Affected pigs are usually found to be "poor doers," showing a scurfy condition of the skin, lack of lustre of the hair, and poor condition.

The appetite is capricious. In some cases, examination of the affected ear reveals a considerable amount of yellowish-brown or brown sticky discharge adhering to the inner surface of the ear.

**Cause and Prevention.**

Examination of several pigs showing such symptoms have revealed the presence of a suppurative condition affecting the middle ear. Examination of the pus shows the presence of bacteria such as are commonly met with in other suppurative conditions in the pig.

It is probable that in these cases they gain entrance to the deeper structures of the ear by way of the narrow passage (called the eustachian tube) which leads from the back of the throat to the middle ear, and from the comparative frequence of nasal catarrh in young pigs it is probable that this ear disease is an extension of this inflammatory process affecting the lining membrane of the nasal passages.

Once the condition is established it is unlikely that any treatment will be of use. Syringing of the outer ear will remove the obvious discharge, but will not penetrate into the deeper structures from which the pus arises.

While the disease cannot be defin-

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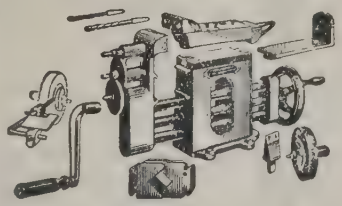
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itely prevented, all possible means, such as proper attention to cleanliness and housing, should be undertaken in order that chills may be avoided. Diet should also be attended to, as it is found that this also plays a not unimportant part in the causation of those diseases, such as catarrh ("snuffles") and pneumonia, with which the condition is frequently associated.


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## POINTS ON FEEDING.

Two foods should be avoided for suckling sows—barley, which is too heating, and has a tendency to reduce the milk flow, and large quantities of dry grain. The food must be sloppy for suckling sows. An adequate supply of green food is invaluable.

Discretion is needed in feeding the suckling sow. Skim milk, mixed with boiled wheat or pollard, makes one of the best rations. Where sufficient milk is not available, a combination of half pollard and half crushed wheat, mixed with water, to make a sloppy porridge, and with any kitchen offal available, is quite suitable.

In fattening up young porkers, they should be put into a sty when about three months old, fed three times daily as much as they can eat, and should be fit for the butcher as porkers of 80 lb. to 90 lb. each at 4 months old. For the last fortnight feed also whole dry barley to firm up the flesh. It has been found that barley meal fattens quicker and better than wheaten meal.

The service boar should be kept in a yard about 2 chains square, and not allowed to run with the sows. Plenty of green food should be available for him, and in addition to the ration fed to the sows he should receive an extra meat diet, cooked meat on the bone being best. He should not, however, be allowed to put on too much condition.

## WHY ARE LEAVES GREEN?

The green coloring matter in leaves is associated with the processes by which the plant makes food out of raw materials. Anything tending to reduce the content of this green material ,chlorophyll, in the leaves is, therefore, a check on the production of these foods.

In general, dark green foliage is the type desired for the best results in the orchard. There are a number of factors that interfere with it. One of them, resulting in light green or yellowish leaves, is an improper balance of nitrogen in the soil. Too much or too little, but especially too little, may give rise to this condition. The remedy in the case of too much nitrogen is to stop fertilisation, and perhaps to grow an intercrop to use up the excess. The other extreme is much more common. When nitrogen is deficient in an orchard, manures or nitrogenous fertilisers should be added, or leguminous cover crops grown.

Another common cause of chlorosis, or lack of chlorophyll, is a deficiency of iron. This may be due not to a lack of iron in the soil, but to its occurrence in a form that is not available to the plant. For example, alkaline soils, or those very high in calcium, may have the iron precipitated in the soil in an insoluble form. The plant can not take up the iron except in solution, and therefore may starve for this substance. A few crystals of ferrous sulphate (green vitrol or copperas) placed in contact with the roots will remedy this condition.

The lack of magnesium is another cause for chlorosis. This substance forms part ,of the green pigment, which is unable to develop without this element. While this is not com-


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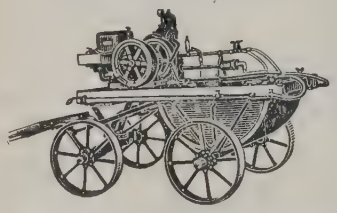
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References: Union Bank of Australia, at Melbourne, Sydney and Hobart.

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mon in orchards, the mottling of the leaves is sometimes attributable to it. Magnesium is present in many marls and limestones, and may be added in this way when deficient.

The light green color noticed so often in trees that have been suffering from lack of water is probably due in most instances to a lack of nitrogen. This may be due not to a deficiency of this element in the soil, but to a failure of the roots to procure it because of the dry condition of the soil. Light green or mottled leaves are usually an indication of improper nutrition, and should be a warning to the grower to remedy the unfavorable condition.—E. L. Proebsting, Pomologist, University of California.

We need to inform the farmers as to the best methods of producing honey, but we need as fully to inform the general public on the fact that honey, like milk, is one of the best foods, one of the rare products of nature which do not need manipulation to be assimilable by the stomach. —"American Bee Journal."

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# Asparagus Growing.

### A Profitable Vegetable.

ASPARAGUS GROWING is a remunerative occupation if carried out properly, stated Mr. G. Hoffmann recently at a meeting of Uraidla and Summertown Fruitgrowers (South Australian "Journal of Agriculture").

Three important things are necessary—good soil, good plants, and plenty of water. Well-drained, black sandy soil is the ideal class of land for Asparagus. Brown loams or heavy black soils will also grow very good crops, but whatever class of land is cultivated, it must be heavily dressed with manures rich in nitrogen.

To grow good crops, the Asparagus must grow very rapidly, otherwise it becomes tough and stringy. To get the best results a heavy coat of stable manure should be trenched into the soil before planting.

There are two well-known varieties which give first-class results, they are "Palmetto" and "Connover's Colossal." The seed should be sown in drills 12 in. apart, and the plants thinned out to about 2 in. apart.

Keep the young plants well hoed and watered all through the summer in order to obtain good, strong plants for early spring planting. One year old plants planted out in the bed give the best results.

Asparagus plants are composed of male and female plants. The male plant bears 50 per cent. more shoots than the female, so it is advisable, wherever possible, to have as many male plants as possible in the bed. **It is necessary to leave the plants two years in the nursery.** The second year the plants will bloom and bear seed. Both male and female plants bloom together, but only the female plant bears seed. When the seed has set, those plants carrying seed should be weeded out, leaving only those without seeds, and those with a very limited number of seeds on the young bushes. It will possibly happen that a large percentage of the plants will

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have to be thrown away if the grower intends to follow that rule.

**Planting.**—Having dug or trenched and worked the land down finely, make the drills 3 ft. apart and about 5 in. deep, and the same in width, and plant the young plants 2 ft. apart. Trim off the roots until they are about 2 in. to 3 in. in length, and spread the roots of the plant evenly over the bottom of the drill, then close the drills. About one month later the first shoots will show above ground. The land should then be hoed lightly to keep the soil loose and free from weeds, and when there are signs of the land becoming dry, it should be watered freely.

It is not advisable to cut Asparagus until the third year after planting, because this weakens and sometimes kills the plants. A bed of Asparagus with proper treatment will last about 50 years, so that the plants should be allowed to become well established, which takes about three years.

The cutting season in the hills commences about the 1st October, and continues until the middle of December, the average cut per season from a rod of well treated Asparagus being about 70 to 80 bundles, varying in price from 1/3 to 9d. per bundle.

When cutting is completed for the season, give the bed a good dressing of bone manure or bonedust, and if dry, irrigate freely until autumn. The "spears" for next year's crop are formed during the summer, and if they are given a good dressing of manure and plenty of water, a large number will develop.

When the Asparagus is about 6 in. above the surface, it should be cut off about 3 in. below the surface, and made into bunches about 3½ in. in diameter. Pack with all the heads level. Tie the bundles in two places. Cut the bottoms level, give the Asparagus a good rinsing, and it is ready for market.

* * *

[It may be added that the time for seed sowing is the spring (August—September), and the time for transplanting Autumn and early winter (May—June). Young plants are obtainable from nurseries and plant stores. The positions for Asparagus growing could be selected now, and the ground turned over, sweetened and manured in preparation for planting during the coming season. — Ed. "F.W."]

---

Readers are asked to notice that Messrs. E. R. Cottier & Co. of Hobart, have changed their address to the following:—"A.M.P. Buildings, cr. Collins and Elizabeth streets, Hobart, Tasmania."

### Appreciation.

Farm 804, Yenda, N.S.W.

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With best wishes,

W. H. M.


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## British and Australasian Market Reports.

### England.

**London (11/2/25).**

Messrs. M. Isaacs and Sons Ltd., Moscow House, Eastcheap, London, reports, under date, 11/2/25:—

Prices realised for American Apples are as follows:—Oregon Newtowns, 10/- to 14/-; smaller, 9/6 to 11/6; Winesaps, 10/6 to 13/6; Spitzenburg, 10/6 to 13/6.

**Bristol (16/3/25).**

Mr. H. G. Colombie, representing the Bristol Fruit Brokers' Ltd., advise have received a cable to the effect that the "American fruit is finishing up strongly on the English market."

### Germany.

**Hamburg (24/1/25).**

Messrs. Algemeene Vruchten Import Maatschappy, reports, under date, 24/1/25, as follows:—Valencia Oranges, 240's, 10/- to 19/-; others, 9/- to 19/-; Blood Oranges, 15/- to 21/-; Mandarins, 420's, 70 m/m, 16/3 to 21/6; 65 m/m, 18/- to 19/-; others, 6/3 to 17/-; Grape-fruit, 19/- to 20/6; American Apples, 7/6 to 20/- per box; Sicilian Lemons, 3/- to 6/9 per box.

**Holland (17/3/25).**

A cablegram received from the Algemeene Vruchten Import Maatschappy, by their representative, Mr. H. G. Colombie, is as follows:—"Good demand for American Apples, obtaining 9 to 11 florins, which is equal to an average of 16/6 per case."

### New South Wales.

**Sydney (24/3/25).**

Mr. F. Chilton, City Fruit Markets, reports under date, 24/3/25, as follows:—

Queensland Fruits.—Bananas, 16/- to 30/- per case; Pines, 6/- to 12/-. New South Wales Fruits.—Bananas, 14/- to 32/- per case; Lemons, 4/- to 10/- per bushel case; Oranges, second crop, 3/- to 11/-; Mandarins, second crop, Emperor, 4/- to 12/-; Quinces, 4/- to 7/-; Apples, Jonathan, 5/- to 9/-; Fanny, 4/- to 8/-; F.C.P., 4/- to 6/-; G. Smith, 5/- to 8/-; Pears, Packham, 7/- to 10/-; B.D.C., 5/- to 7/-; B.B., 5/- to 7/-; Passions, 5/- to 12/- per half case; Peaches, 4/- to 6/-; Plums, 3/- to 7/-; Persimmons, 3/- to 5/-; Tomatoes, 3/- to 6/-; Grapes, Black Cornichon, 5/- to 7/-; White Sherry, 4/- to 6/-; Black Muscat, 5/- to 11/-. Victorian Fruits.—Apples, Jonathan, 5/- to 9/- per bushel case; cooking varieties, 4/- to 6/-; Pears, W.B.C., 6/- to 9/-; B.D.C., 5/- to 7/6; W.C., 5/- to 8/-; Quinces, 5/- to 7/-. Tasmanian Fruits.—Apples, Jonathan, 6/- to 8/6 per bushel case; D.C., 5/- to 6/6; W.P.M., 6/- to 8/-; Alx., 5/- to 6/-; Alf., 4/- to 6/-; Pears, G.B., 3/- to 4/6 per half case; W.C., 3/6 to 5/-; B.D.C., 3/- to 4/-; B.B., 3/- to 4/6.

The demand for fruit generally may be considered fairly satisfactory at present, especially for best qualities.

Early shipments of Tasmanian Apples and Pears are not receiving the same keen attention of buyers now, as they did in former years, the reason being the ever-increasing quantities of good quality fruit of varieties most in favor grown in N.S.W. and Victoria. Prospects, however, appear encouraging for a little later in the season.

Queensland Pines have been arriving more or less affected with Water Blister, which seems to be very prevalent this season. Buyers complain bitterly of this trouble.

Victorian Peaches from several districts have been affected with fungus disease, which seriously affects the keeping quality. Prices for this sort of fruit have necessarily been low.

### Victoria.

**Melbourne (30/3/25).**

The tone of the market is dull, despite the warmer weather experienced over the week-end. The following were the ruling wholesale quotations at the Western Market yesterday:—Apples—Good to choice eating, 3/- to 6/-; good to choice cooking, 2/6 to 4/-; Bananas—Queensland, 18/- to 25/- double; Figs, 7/- to 8/-; Grapes, Muscatels, 6/- to 10/-; Waltham, 6/- to 10/-; R. Prince and B. Prince, 6/- to 9/-; Lemons, Victorian, 7/- to 13/-; Passion-fruit, Victorian, 10/- to 12/-; Peaches, Good to choice dessert, 6/- to 7/-; medium dessert, 4/- to 5/-; canning, 4/- to 5/-; Pears, B. de C., 3/- to 4/-; others, 3/- to 5/-; Pineapples, Queens, 12/- to 13/- double; Tomatoes, 2/6 to 4/-.

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E. H. WRAGG, Secretary and Advertising Manager.

**Tasmanian Director:** HON. L. M. SHOOBRIDGE, M.L.C.

# Editorial.

THAT there are very real problems before several sections of the fruit industry in Australia can not be gainsaid. What can be done to bring about the improvements which are so urgently needed?

The producers of dried fruits are wondering how they will fare under the control system constituted by Acts of Parliament. The settlement of large numbers of ex-soldiers in the Murray Valley on dried fruit blocks was largely responsible for the present deplorable position, i.e., the production of quantities of fruit far in excess of Australian requirements, no adequate provision being made in advance for developing markets for the surplus.

In the meantime, whilst the marketing for the present and the two following seasons is under the legally constituted Boards, the growers, or the most thoughtful of them, recognise the necessity of making plans now for the "de-control" which must come later. In this end a special conference of producers has been called to consider the future of the Australian Dried Fruits Association. In the meantime it is hoped that the export markets, particularly in Great Britain, will show a more hopeful tone, for if the export trade could be put on a payable basis, there would be no further problems. The new Imperial Preference in Great Britain should be of material assistance. With the completion of the Australian-Canadian trade treaty—at present in dispute—the market in Canada for Australian dried fruits can be tested.

Speaking of export, it is pleasant to note the success of the overseas shipments of Australian Apples. This export trade has been built up during a period of 25 years; many problems were faced in the early days of export, and were overcome. The solving of the "brown-heart" problems by the delegation of scientists was an achievement of profound importance to Australia.

In studying the Bitter Pit problem, as scientists are now doing, the broad question of improving the conditions of the export of fresh Apples is receiving close attention.

Where would the Apple-growing industry be to-day without its export trade and its local cold stores?

Organisation and co-operation on sound lines have been responsible for the present satisfactory condition.

Growers of citrus fruits are plainly faced with a serious problem. The published remarks of Mr. Stanley Brentnall, Chairman of Directors of the Victorian Central Citrus Association (in this issue), are worthy of close attention. Mr. Brentnall urges the absolute necessity for the development of the export trade: otherwise the Melbourne market, with a capacity of absorbing under 300,000 bushels, is certain to receive over 400,000 bushels with a resultant slump in prices.

This matter of providing the fruit for export is in the hands of the growers themselves, and it is to be hoped that the various State and district organisations will rally behind their leaders.

There is an urgent need for a responsible authority to compile accurate statistics relative to the fruit industry in its several branches. Statistics as to acreage, kinds of fruits, varieties, production, etc.: this would be of great value to those who are at present in the industry, and to those who proposed to enter. The several State Departments of Agriculture appear to be in the best position to undertake this work.

On the question of scientific experiment, there can be no divergence of opinion. Money should be made available for trained scientists to probe into all matters relative to the export of fresh fruit. This service would be of especial value to the citrus industry just now. Scientists tell us there are latent possibilities in the export of Plums, Pears, Peaches, etc. This line of enquiry is worth following up.

As regards organisation we have consistently published details regarding the best methods adopted in U.S.A. and elsewhere. It is a pity that the word "Co-operation" is out of favor with so many Australian growers. It is a tragedy that so many enterprises, misnamed "co-operative," have started off in a spirit of boastfulness, directing unpleasant epithets at the present methods of distribution as at present organised.

Improvements are surely needed, but they will come in a spirit of service, demonstrating the value of the new before pulling down the old.

All interested in organising the fruit industry are invited to closely study the special series of articles in the "Fruit World," written by Dr. Blatt, of South Africa and California. Are we following all the essential factors which make for success?

The position in Queensland is not a happy one. It appeared to many that steady progress in organising was being made by the Southern Queensland Fruit Society: some, however, thought things were not moving fast enough, and a compulsory control system of marketing was introduced. The legal actions published in this issue make sorry reading. Is this a case of "more haste, less speed?" Growers who sincerely desire to improve their industry are deserving of every sympathy and encouragement, but we must not forget our British heritage, and that sturdy spirit of independence which is our natural characteristic. Hence the revolt against undue compulsion.

In organising the fruit industry, there is no need to eliminate anyone

except the unfit, and that follows as a natural sequence when the organisation proceeds on sane lines.

There should be no need for compulsion: co-operative enterprises should win by their ability. Nor should there be any need for such a proposal as a Fresh Fruit Export Control Bill, or legislation of a similar character. Growers, we are sure, are ready and waiting to follow sound leadership on which alone success will be built.

## News in Brief.

Strong recommendations are being made in favor of the total prohibition of Bananas from countries where the dreaded sigatoke disease is known to exist.

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Arising out of the use of the hot and cold dips, some interesting conclusions are drawn by our Murray River correspondent in his article on Fruitgrowing under Irrigation.

* * *

In emphasising the possibilities of co-operative marketing, Dr. R. J. Blatt, in his article in this issue, again emphasises the importance of harmony between the co-operated growers and the wholesale and retail trade.

* * *

At the recent conference of Ministers of Agriculture, held at Hobart, the fruit committee, consisting of the Government fruit experts of the several States, recommended that the proposed Fresh Fruit Export Control Bill be opposed. The recommendation was adopted.

* * *

Fruitgrowers in Western Australia are urging that the regulations under the Plant Diseases Act be tightened up as regards dealing with the "backyard" gardens between Guildford and Fremantle—stated to be breeding grounds for the pest.

* * *

Useful hints on spraying for black spot and curl leaf, also comparison between spraying and powder dusting, were given by Mr. Geo. Quinn, South Australian Horticultural Instructor at the recent Fruitgrowers' Conference at Clare.

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The Woolly Aphis parasite (Aphelinus mali) has been successfully introduced into Western Australia, and the Department of Agriculture has sent specimens to many orchardists. The Government Entomologist, Mr. L. J. Newman, anticipates that beneficial results will follow.

Colonies of Aphelinus mali have been sent to Victoria and Tasmania by the Western Australian Department of Agriculture.

## Closing of Fruit Shops.

### Early Closing Restrictions in Melbourne Suburbs.

### Should the Present Position Continue?

From the 1st of May to 30th September—five months—it is a punishable offence for any fruit to be sold in the **suburbs** of Melbourne after 7 p.m. for four nights of the week.

These remarks applied until recently to the **City** of Melbourne, but the fight put up by the "Fruit World" and some noted members of Parliament, resulted in the latter restriction being removed.

The evening trade of the Melbourne suburbs is worth having—especially to our citrus producing friends.

**Why are the shops compulsorily closed?**

Because, under the Victorian Shops and Factories Act any group of traders can on a majority petition regulate their own hours. By petition some nine years ago the suburban shops were closed, as above stated.

**How could the shops be re-opened?**

By a petition of a majority of the shopkeepers requesting to be allowed to remain open in the evenings.

**What justifies the alteration?**

We must keep abreast of the times. When the petition was presented nine years ago there were not the picture shows and other suburban attractions. Now things are different, and **from enquiries we have made we believe a majority of the shopkeepers now desire to revert to the previous trading hours without the 7 o'clock closing restrictions.** The shops that want to close may do so, but why the compulsion for all to close? Further, the early closing restrictions are resented by the general public, who desire to purchase fruit, but are unable to do so.

Again, any shop which sells fruit must **close its doors** at 7 p.m. Consequently shops which sell confectionary, say in the vicinity of picture theatres, **are not permitted to sell any fruit in the day time,** for if they do so they must close their doors at 7 o'clock at night. So if they desire to keep open to sell lollies, they cannot sell any fruit at all.

**What should be done?**

The fruitgrowers' organisations have the opportunity of testing on this matter. They should draw up a petition in the prescribed manner, and submit it to the fruit shopkeepers in the suburbs. Two weeks would be sufficient to test the feeling. Its worth going after, but it must be done properly.

For further information write to the Editor "Fruit World."

## Personal.

Mr. A. J. Smith M. A., Cambridge Cold Storage Scientist, accompanied by his assistant, Mr. J.C.Poole, passed through Melbourne to Sydney recently, and visited the Royal Agricultural Show there. These scientists are continuing their investigations into problems relating to the cold storage and transport of fruit, and will sail for England on separate boats carrying fruit cargoes.

* * *

On Wednesday, April 22nd, the Chairman of the Board of the Australian Dried Fruits Association (Mr. H. D. Howie) left by the "Wyreema" for a trip to Cairns, Queensland. His health has been anything but good for some considerable time past, and the very heavy work thrown upon him after the passage of the recent dried fruit legislation, made a health trip imperative.

We hope sincerely that the voyage up north will be the means of completely recuperating his health and strength.

* * *

Mr. Leo T. Pearce, who has been with the A.D.F.A. for over a year as Sydney representative, terminated his appointment on April 25th. Our best wishes go with him for the future.

## PAYMENT FOR DRIED APPLES.

### £3,000 Involved.

Owing to the delay in settling the claims for the loss on the s.s. "Baradine's" shipment of evaporated Apples about two years ago, Mr. A. C. Seabrook M.H.R. interviewed the officials of the Customs' Department recently. The reply given was that the matter was now practically finalised, and the money would be forwarded in the course of a few days. The sum of about £3,000 is involved.

## OVER PRODUCTION OF SUGAR.

Owing to the "hot-house" treatment of the sugar industry, there has been a big expansion in production, and Queensland now faces a production of 200,000 tons of sugar in excess of Australian requirements.

As the world's parity is lower than the artificial Australian price, the huge surplus must be exported at a loss.

Yet the consumption of jam in Australia is steadily declining because the price of sugar is too high.

A Royal Commission has been appointed by the Queensland Government to report on alien immigration and the settlement of foreigners in the north, especially in the sugar cane growing areas.

# The Apparent Scope and Limitation of Co-operative Marketing.

## Valuable Suggestions for All Interested in Organising.

*Specially written for the "Fruit World" by Dr. Redvers J. Blatt, of California and South Africa.*

(*Continued from page 151 April "Fruit World"*)

### CO-OPERATIVE MARKETING.

ELEVEN FUNDAMENTAL principles for the success of co-operative marketing were laid down by the organiser of what has since been termed the "finest example in the world of co-operation, as applied to the handling of a primary product," viz., the Californian Fruitgrowers' (Citrus) Exchange.

In the past two issues of the "Fruit World," nine of these essential principles have been laid down and expounded. Readers are recommended to give close attention to all the details there dealt with. We now publish the third and final instalment of the series, in the hope that it will prove a definite and constructive contribution to the present vexed question of fruit marketing.

The writer of these articles is Dr. Blatt, a South African, who had several years' training in California, where he took his degrees with special honors in Citrus Culture and organisation.

Dr. Blatt writes:—

**(10) The details of handling, selling, and distributing the crop must be adapted to the nature and volume of the crop.**

Association packing, where possible, is most desirable for the sake of securing uniformity in the product, but it is not applicable to most perishable products, e.g., Blackberries, Strawberries, and Loganberries, etc., which are packed directly in the field. Cantaloupes are also handled in this way, since delay in warehouses would be disastrous. With the less perishable products, like Oranges, Lemons, and Apples, etc., not to mention nuts and dried fruit, the association packing is desirable and economical. Certain products, again, do not need elaborate equipment, especially perishable products, and the sooner they reach the refrigerator cars the better.

The method of shipping depends largely upon the perishability of the product. Berries are usually precooled and pre-iced, and go out on passenger trains, in refrigerator express cars, hence these products can actually be shipped as far as Chicago, with additional icing en route.

Oranges require no refrigeration in cool weather, but must be shipped under ice when the weather becomes warm. Apples require refrigeration in summer and insulation in winter to protect them from freezing. While deciduous fruits are nearly always shipped in summer, they need thorough refrigeration, even when shipped from points in California to places in the same State. Nuts are non-perishable products, but rapid transit is necessary due to demand. Raisins and dried fruit may move on a slow schedule, since the demand is not so great at time of shipment.

**In this the final article of the present series, the writer again emphasises the necessity for the mutual friendly recognition of the services of the organised growers and of the wholesale and retail salesmen.**

**Loyalty on the part of the growers is essential.**

**The series as a whole points the way for a reasonable objective, which is possible of attainment by organisation in the fruit industry. Nothing revolutionary or sensational is included; instead, there is brought forward a plain and business-like programme, based on the principles which underlie the successes attained both here and in California?**

**Can we rise to our opportunities?**

The selling of a product is most important, and here is usually where the rub comes in: associations handling a small volume, like the Sebastopol Apple Growers' Union, need no extensive sales organisation in eastern U.S.A. to handle their products. They are better off selling through brokers located in various markets.

On the other hand a large organisation like the California Fruit Growers' Exchange, which ships Lemons and Oranges every week during the year, and whose regular output aggregates thousands of carloads every year, needs an extensive sales force to handle the crop in U.S.A. and Canada, when almost every available market is utilised.

It maintains salaried representatives in 77 different markets, well distributed throughout the country, and it aims to have a representative in every market that can handle 100 carloads or more fruit a year. In other markets that can handle fruit by the carload, the Exchange is represented by local brokers, who work in conjunction with the Exchange office nearest them.

In a few large cities, the Exchange representative acts as receiving agent, and the fruit is sold by auction; about one-third of the fruit is sold in this way. About 10 per cent. of the fruit is sold f.o.b., **but by far the largest portion is sold to local jobbers by the Exchange representative.**

The telegram service of this organisation is unique, and is responsible largely for the efficient distribution; every Friday, each representative in the market wires the Los Angeles office an estimate of the number of cars his market can handle to advantage from the shipments to be made the following week. The manager from each District Exchange telephones the same office an estimate of the number of cars he plans to ship during the same period. With this information at hand, together with daily telegraphic reports on the condition of the various markets, and the number of cars on track, and en route, the Los Angeles office is in a position to give intelligent service and advice to the various District Exchange managers in the distribution of the next week's shipments.

Whereas according to the contracts the local associations may ship where and whenever it likes, in reality, however, it is left, and justly so, to the district exchange manager to direct shipments. As soon as a car is ready to leave the packing house, the district exchange manager reports the fact to the Los Angeles office, and a bill of lading, together with a size list and other data is forwarded to the Exchange representative in the market to which the car is billed. The agent quotes a price on the day, before the arrival of the car, while a day before this the district exchange manager, in consultation with the Los Angeles office, has set the price of the car, which is wired to the agent in the market. If the jobber agrees to this price the deal is closed, but if there is some disagreement, the agent wires back to the Los Angeles office the jobber's offer. The matter is then threshed out between the Los Angeles office and the district exchange manager, who has the final decision as a rule. Finally their decision is wired back to the agent, who must act always from instructions from the Los Angeles office.

All fruit is inspected en route, and at its final destination.

The wholesale demand for **Walnuts** and **Almonds** is limited to a very short season, hence these two products are wisely sold through brokers who represent them in the east. Just before the harvest of Walnuts and

Almonds, the managers of the Walnut and Almond Growers' Association visit the jobbers and brokers in the East to

**create a friendly feeling**

between the associations and the Trade, and to ascertain the trade conditions. A thorough survey is made in eastern U.S.A. and Europe at this time to ascertain trade conditions. A survey of the probable crop production in Europe is also made.

Hence with the information obtained from these surveys, and the survey in California with regard to production, prices are named, usually just before the harvest. These prices are wired to all who have placed orders.

These organisations have, therefore, been able to get rid of all their crop at a good price, for they know just how much the market can stand.

**In every co-operative marketing organisation, "Supply and Demand," and the "Cost of Production" should determine the selling of prices. Invariably where this has been ignored organisations have come to grief.**

The best example of this is the Sun-Maid Raisin Co. that set the price too high, and as a result had an exceedingly large hold over, which they tried to get rid of, before the following season, by reducing the price three cents a lb. in most varieties. This association is doing everything to try and reduce the tonnage.

For the first time in history Raisin growers and dried Peach producers are now able to obtain loans granted to certain farmers by the Federal Government. This certainly proves that these industries are in anything but a flourishing condition. Another very important matter is to try and dispose of each year's crop, and to prevent hold overs which are so demoralising to the trade. This, of course, is most difficult, yet if prices in certain instances were lowered towards the end of the season, the association may be better off in the end.

The Walnut Growers' Exchange got rid of its entire crop, and its stable financial condition comes as a result of such a method. In the citrus industry hold overs are not possible, and if a car reaches a glutted market, it is rolled until it reaches a more favourable market. However, prices are often reduced, and the car disposed of, rather than have a serious loss through decay, by delaying the sale. Market analysis is most important.

Prices have often been set on a rising market, and if the market continues to rise, this would be all right, but often this is not the case, and the too high prices cut down the sales, and the result is large hold overs. The best example of this is the Rice industry, which made rapid strides during the war, when prices were high, but prices dropped after the war, and then the crash came, resulting in a large hold over and reorganisation in 1921.

**(11) Loyalty of the individual members and mutual confidence among all factors in the organisation are absolutely essential to permanent success. There should also be a friendly relation between distributors and the organisations of producers.**

The idea of loyalty is inherent in the very idea of co-operation, and this is clearly shown in the frank recognition of equality of membership. Confidence, equality and mutual trust should be keynotes of co-operation.

Unfortunately, men have not yet evolved to that ideal state of mutual trust, and for this reason it has been necessary to bind growers by contracts. This weakness of human nature only strengthens the argument for loyalty among all factors in organisations in order to be successful.

Throughout the life of almost any co-operative organisation it has to fight the attacks of independents, and this is where the test of loyalty appears. The very existence of associations has been threatened by disloyal members having been enticed by the opposition. Firm belief in the soundness of the principles of the organisation and its methods of operation, and willingness to defend that belief in the face of opposition, are also essential.

The local association, district exchange and central exchange should be kept in sympathetic touch with the purposes, policies, and accomplishments of the organisation as a whole. Personal contact of member with member, and of member with manager, together with suitable literature sent out from the central office to all members will strengthen loyalty in the organisation.

**Distributors Perform Vital Service.**

There should be the closest co-operation between a producers' organisation and those who distribute its crops because the distributor performs a vital service in bringing the producer and the consumer together. **The distributors or middlemen are necessary to producers and public, since it is impractical and uneconomical to sell any share of our farm crops direct from producer to consumer.**

The wholesale buyer, jobber, and retailer are desirable as long as they distribute products economically; furthermore, it pays to be friendly towards the trade; get acquainted and talk things over, see their viewpoint, and try to understand their difficulties, and better distribution will follow.

In the end, such an attitude of the trade can only be kept by their making a reasonable profit by selling the goods.

It may be well to mention the good work done by the California Protective League, organised in 1906 and supported by co-operative organisations, and independents alike in the citrus industry. Members are assessed so much per box, and the League tries to protect the citrus industry as a whole; this is the one place where there is whole-hearted co-operation. In 1922 the League concerned itself with tariff on imported citrus fruits and their by-products; the freight rate and other transportation questions, and the problems arising from frost injury to fruit in jam. It also worked out the cost of production of Lemons to be $4.085 a box, i.e., delivered cost per box, not including selling expenses, and $4.028 for Oranges. These figures were obtained from an extensive survey in California. The membership of the League includes the following:—

California Fruit Growers' Exchange, Mutual Orange Distributors, Randolph Marketing Co., Stewart Fruit Co., National Orange Co., Redlands Orange Growers' Association, I. L. Lyon & Sons, C. M. Brown, C. C. Chapman, E. B. Leach, California Mutual Packing Co., Estate of L. V. Brown, Fillmore Packing Co., American Fruit Growers' Inc., L. Barr Fruit Co.

The organisations handle citrus, but one or two in addition handle deciduous fruit as well. The California Fruit Growers' Exchange, and the Mutual Orange Distributors are strictly co-operative marketing organisations. The former handled, in 1922, i.e., 1921-1922 season, 27,138 cars, or 68.7 per cent. of the state's total citrus fruit shipments, while the value of the Exchange's output was £9,729,560. This Exchange also owns and operates:—The Fruit Growers' Supply Co., a subsidiary company, whose net gross sales in 1922 totalled £2,043,309, including the Hilt and Lassen operations. The Mutual Orange Distributors, with headquarters at Redlands, was organised in 1906, and is run by a Board of Directors, composed of fifteen members, selected from the associated members by the various districts and equitably distributed. About 2,500 California citrus growers ship through this organisation, which has 124 salesmen covering 377 markets. Their brands are Sunflower and Poppy—fancy, and Golden rod and Pansy—choice. The Randolph Marketing Co. is a commercial organisation, using the name Randolph as a goodwill. It exploits the north-western and Canadian markets mostly.

The American Fruit Growers Inc. is quite a large fruit distributing agency, handling vegetables and deciduous fruit more than citrus; it is an old established firm, and has agents throughout the U.S.A.. I. L. Lyons and Son, C. M. Brown, C. C.

Chapman, E. B. Leach, and Estate of L. V. Brown are independent growers who have well established brands, and hence make good money by selling at auction in the East. The Mission brand of C. C. Chapman is, particularly, famous all over U.S.A., and realises as much as $14 a box at times.

The National Orange Co. is a large estate owned by the Chase family, of Riverside, and they ship from their own packing house, selling independently. The rest on the list are small organisations, selling independently; the Stewart Fruit Co. is a very strong commercial firm in the deciduous fruit industry.

It will be noticed that in the citrus industry and the Raisin industry the independent shippers are not great factors, but in the deciduous fruit industry the commercial firms control about 75 per cent. of the State shipments; they also control 25 per cent. of the dried Peach industry, and about 80 per cent. or thereabouts of the vegetable industry. In the Walnut and Almond industry the independent shippers are not factors.

The growers shipping through co-operative organisations effect a great saving in cost of marketing, due to large scale operations; then again they pool their risk and are assured at least an average price.

On the other hand many growers, although fully believing in the principles of co-operation, throw in their lot with the commercial men due to the large advance made them on their crops. These people cannot afford to wait until their crops are sold; in fact, they often need the money before the crops are harvested.

The citrus grower can get one cent. a pound for fancy fruit at the time he delivers the fruit at the packing house of the Exchange. Other co-operative organisations also pay so much at the time of delivery, but never made advances before the crops are harvested.

The Earl Fruit Co., F. B. McKevitt Co.,Pacific Fruit Exchange, Pioneer Fruit Exchange, Producers Fruit Co. of Cal., Chas. E. Virdew, Western Fruit Co., and W. J. Wilson & Son all ship through the California fruit distributors, a marketing agency having salaried agents, in the leading markets of U.S.A., who wire daily market reports and reports of actual sales to the main office in Sacramento. Each shipping firm pays this agency 4 per cent. on sales for its services. These firms either buy the fruit outright from the growers, ship on consignment (usually on a 7 per cent. commission basis), or guarantee a certain price, and any profit above this is halved by the grower and the firm.

The California Vegetable Union is a close corporation owned by five or six men, and shipping about 80 per cent of California shipments. They buy right out or handle the products on commission. Three years ago the California Distributors and the Cal. Vegetable Union formed the General Sales Agency of America, assisted by other corporations. This Agency maintains agents in the leading markets, and charge a brokerage fee, the profits being distributed according to the products handled.

This discussion, on the commercial firms handling horticultural products and vegetables in California, has been entered into to show how that certain co-operative organisations will have to get busy and increase their percentage of crops handled in order to get control, and prevent price cutting which usually leads to disaster.

This is particularly true of the California Fruit Exchange, and the California Peach and Fig Growers' Exchange. There is no reason why co-operative organisations should not be successful if they stick rigidly to the fundamental principles of co-operative marketing as outlined in this paper.

If organisations like the California Fruit Growers' Exchange, the Walnut Growers' Exchange, and the Almond Growers' Exchange have been successful, and they certainly have, co-operative marketing is possible.

(The End.)

# Cherry Growing.

### What is the Best Root Stock.

### The Limitations of Mazzard.

THE features of the Mazzard stock are its vigorous root habit and the large, handsome trees it produces, even on light soils. It is exceedingly slow in attaining maturity (writes the "Agricultural Gazette" of N.S.W.), and though that may be corrected in a measure by planting on light soils, even there, ten years and more are required to bring a tree to profitable cropping.

On the heavier soils the Mazzard stock expends itself in the production of an expansive, growthy tree, and

**fourteen to sixteen years**

is not an uncommon age before a tree starts fruiting. This is so marked that none but a few of the most ardent admirers of Mazzard will advocate its use on heavy land.

At Orange, N.S.W., which is largely "a Mazzard district," because the cooler conditions there favour that stock, the swing back of opinion to Kentish on all but the light soils is most marked, growers confining their support of Mazzard to conditions that make its vigorous root system a definite necessity.

The cases may be mentioned of one Young (N.S.W.) grower whose Mazzard trees at 12 years old are just coming to bearing; of another who has had one good crop from trees 18 years old; and of a third who has waited ten or twelve years, and then has found the trees dying back.

At Orange may be mentioned a block of St. Margarets on Mazzard which at 16 years old has this season yielded the first good crop, a 16-year-old block in another orchard that has not yet cropped, and a block of St. Margarets on Mazzard in the same orchard which in sixteen years has given three crops—the first fourteen boxes per tree, the second eight boxes, and the third twenty boxes.

**Another Limitation.**

This stock has the further limitation that on almost all classes of soils, and without any definite relation to variety, it is no uncommon thing to see several trees in a plantation dying back branch by branch.

This habit is often connected by growers with the condition known as "sour sap," but sour sap is not invariably present, though several growers testify that it is not the roots that die out—in fact, often the roots, when uncovered, are found quite healthy, while the top of the tree is almost dead.

The phenomenon requires a good deal of study, for while Mazzard generally lasts longer on light soils than on heavy, there are orchards where the dying-off described occurs under apparently the most suitable soil conditions. The seriousness to growers of the loss of trees after they have waited ten, twelve, and even fifteen years for returns does not need to be laboured.

It has been the custom to consider that certain varieties should be worked on Mazzard only, but sufficient evidence is forthcoming now to indicate that that, at any rate, does not apply to all conditions.

Early Lyons, for instance, usually tends to over-crop on Kentish, and comes so early into bearing as to stunt growth; but it is not invariably so.

"I would plant Kentish only—Lyons and all," said an Orange grower recently,and another (located on strong soil) remarked that he had Early Lyons on Kentish, and they were cropping quite satisfactorily. Moreover, Early Lyons trees can be seen showing good growth on Kentish stock, the soil being good and climatic conditions mild.

Growers find large trees are not an unqualified advantage. They are difficult to harvest, and pickers are apt to leave untouched the fruit on the tops of the branches that are hard to reach. In any case long branches are slow to pick. "You can pick two cases on the ground to one on the

ladder," is a recognised fact; so that when the crop is coming rapidly to hand, it is a consideration to have smallish trees with their crops within easy reach.

The Mazzard sucker is characterised by a broader and larger leaf than the Kentish, by the serrated edges of the leaf, and by a duller colour. The difference between the two plants is often difficult to determine, however, as they vary much in size according to soil and other conditions.

**The Mahaleb Stock.**

One other stock is used in this State—Mahaleb—but its utility is reserved for one variety of Cherry—Early Purple Guigne. In fact, "E.P.G.," as it is often called, should be grown on nothing else, neither Mazzard nor Kentish apparently suiting it so well under any conditions. Mahaleb has a marked stunting effect on all varieties worked on it. It has a much smaller leaf than either of the other more-favoured stocks, and a lighter colour.

**A Summary.**

Our discussion in these notes of the two stocks will suggest to readers that Kentish should be used on all the heavier types of soils and Mazzard on the light ones only. Where the soil conditions seem to favour the formation by Kentish of small trees, the grower can with safety plant a little closer together, compensating himself for the smaller trees compared with the Mazzards by having more to the acre.

Bearing in mind all that we have said as to the relationship of stocks and soils (states the N.S.W. Department of Agriculture) there are certain varieties that, all other things being favourable, show a preference for certain stocks. These may be indicated in general terms as follows:—

**On Kentish Stock.**—Florence, St. Margaret, Noble, Black Republican, Biggareau Pellissies.

**On Mazzard Stock.**—Early Lyons, Eagle Seedling, Bedford's Prolific.

**On Mahaleb Stock.**—Early Purple Guigne.

A number of varieties are impartial as to the stocks they like, Burgdorf Seedling and Werder's Early being notable in this regard.

## WHAT I DON'T KNOW ABOUT CHERRY POLLINATION.

**(By G. L. Philp.)**

After six years' experimental work I do not know very much about Cherry pollination. One year I can get a good set on a Napoleon (Royal Ann) with Black Tartarian pollen. The next year the set will be low, not producing a commercial crop. Why? I don't know. I can use five different kinds of Black Tartarian pollen and pollinate different blossoms on the same Napoleon tree the same season, and get a range from no fruit to a very high yield. Why? I don't know. Apparently there are different types of Cherries called Black Tartarians. As far as the appearance of the tree or fruit is concerned, they may be the same, but from a pollination standpoint they are entirely different (writes Mr. G. L. Philp, Pomologist, University of California).

Any sweet Cherry pollinated with its own pollen will not set any fruit. Why? I don't know. It therefore is not advisable to plant Cherries in solid blocks if you expect to get them to set fruit. Another important fact is that Napoleon, Lambert and Bing, three of our important Cherry varieties, will not set fruit when inter-pollinated, ie., they are inter-barren, and should not be interplanted with the expectation of their setting fruit. Why? I don't know. The above conditions are not observed alone in California, but similar conditions exist in the North-west, in England, and in Sweden.

Why all these troubles with Cherries? In the case of Almonds certain varieties are inter-sterile, others are not. Why? I don't know. With numerous fruits, Peaches, Apricots, etc., there is no pollination problem. They not only are self-fertile, but also inter-fruitful, and can be planted in solid blocks or inter-planted. Why this different behavior between different fruits? I don't know.

The trouble with Cherries seems to be "What is a variety?" You will hear a grower talk about a good or poor Napoleon, a long or short stem Bing, a fine Tartarian, an early blooming Napoleon, etc., etc. If Cherry varieties are true to name, should there be so much variation between different trees of the same variety? The writer is of the opinion that at the present time there are no true varieties of Cherries, but rather types or strains of varieties which are so similar that it has not been possible to distinguish between them. But from a pollination standpoint they are entirely different.

At the present time, under existing conditions, it seems that the Cherry grower who has the best mixture of varieties has the best chance of getting large, regular crops. The grower who has two or three varieties only may or may not get crops. It is just a gamble. In the case where fate is with him, and he has inter-fruitful varieties he will get crops. If fate is against him and his varieties (which may be the same as his fortunate neighbor) are inter-barren strains he will have nice vigorous trees, which bloom profusely, but set no fruit.

The Division of Pomology is working on this problem, and is trying to answer the "I don't knows" enumerated above, hoping to be able to answer the present unsolved questions, and also to determine what is a Cherry variety.

## REJUVENATING OLD FRUIT TREES.

Old trees that are apparently declining in vigor can be revived in most cases if the wood is not decayed. However, where heart-rot has gained an entrance, it is sometimes a question as to whether it will pay to practice the necessary surgery to prevent the trees from breaking to pieces.

If trees are declining in productivity, apparently because of age, much can be accomplished by the use of a saw and pruning shears. If the top is dense it will usually pay to either take out one or more rather large branches, or better still, to open up the head by pruning out numerous small branches. The latter may be only from one-quarter inch to an inch in diameter. It usually does not pay to remove branches that are more than three to three and one-half inches in diameter. With some fruits, notably the Apple in coastal areas, it is very dangerous to remove large branches at all on account of the risk of admitting heart-rot fungi through the wounds, (writes Mr. W. L. Howard, Pomologist, University of California).

It is usually worth while to spend a moderate amount of money in patching up old trees that have begun to decay.

In winter or early spring, all decayed wood should be carefully scraped out and the cavities filled with concrete. Where the decay seems to be very active, it may be necessary to brush the inside of the decayed area with creosote or treat with a disinfectant and then cover with hot asphaltum. It should be remembered that heart-rot continues to be active within the tree even when out of contact with the air. Hence, if the decayed cavities are filled without removing all of the diseased portions, the fungus may continue to rot the wood.

The final step in reviving old trees is to increase the fertility of the soil. For this purpose nothing is better than animal manures applied liberally.

Certain species and varieties of trees may respond to mineral fertilisers, especially those of a nitrogenous nature such as nitrate of soda, sulphate of ammonia, dried blood, etc. The Apple is perhaps the most difficult of all fruit trees to respond to fertilisers, while the Peach is among the easiest.

**Acknowledgment.**—The photograph of Mr. A. J. Smith, M.A., which appeared on page 143 of the April "Fruit World," should have been acknowledged as coming from the Melbourne "Argus." We regret that this acknowledgment was not published last issue.

# The Fruit Case and its Special Relation to the Packing of Apples.

## Timber for Cases should be allowed in Duty Free.

By R. G. Edgell, President Bathurst (N.S.W.) Fruitgrowers' Association.

MODERN FRUIT PACKING differs from that of any ordinary commodity. The remarks refer especially to the packing of Apples, but are applicable to that of Pears and citrus fruits except for minor differences.

Each Apple is classed according to quality and size. Different sizes are not packed in the one case. Each is wrapped in special paper and each size is packed according to its appropriate pattern. This pattern gives a definite number of fruits to the case. This is the maximum which the case will hold. The case is more than filled, but its elastic nature allows it to be properly closed. Modern fruit packing is an art which has to be carefully taught, and in America the Government has for years been running large schools for this purpose.

Only recently have Australian orchardists begun to learn modern packing methods. These cannot be carried out except by the use of the Canadian type case. Until the last few years we have had to use the Australian, or "dump" case because none other has been available. But since the Canadian case has been imported, its great advantages have led to its wide adoption. The Australian case has for many years retarded the growth of the fruit industry, and we believe that our future progress depends upon our being able to use the Canadian case. This is a really vital matter.

But the Canadian type case cannot be made from Australian timber. Nor can it economically be made in a box factory. It is usually made at the orchard. But the "dump" or Australian box is made at the factory from second class or scrap timber. For many years we orchardists have been entirely in the hands of the local box maker, and the necessary use of his case has done more than anything else to retard the industry and lower the standard of our high class fruit. We cannot hope to develop the export trade unless we can pack in a suitable case. And even for the home trade the dump case is not suitable for high class fruit, because of the damage it receives before it reaches the consumer.

The Canadian case has the following special characteristics:—It is elastic and allows of over filling. As the fruit shrinks or settles closer together during transit, the case follows it and continues to afford gentle, but firm, support to each fruit. Any looseness which would otherwise develop must ruin the fruit. The Canadian case also allows for ventilation and the weight of the load is taken opposite the ends of the case, and not where the fruit will be crushed or bruised.

No timber of which Australia has an adequate supply is suitable for use in the Canadian type case. Because the main boards must spring over the fruit they must be cut very thin, lids and bottoms are less than one quarter of an inch thick. All boards are wide so must be cut from full sized logs. They must be of straight grain and free from serious knots and other defects. The timber must not be liable to warp or crack. It should be light and clean and without any tendency to taint the flavour of the fruit.

Because the main boards are wide and thin much timber is cut to waste when making the Canadian type case. All the waste has to be imported and duty paid upon it as well as freight, while only about half is used in the finished case. Special machinery is required to cut this timber satisfactorily. Only a few firms have this machinery, and it is chiefly employed on other work.

Our cases are all wanted during about two months of the year when the fruit begins to ripen. Orchardists cannot order cases until late in the season because they cannot, before then, estimate their crop or the number of cases required. Some years there is a heavy crop and large demand for cases. During other years the crop is very light. Millers here cannot instal economically, enough machinery to cut what we want in a heavy year because it would be idle most of that year, and in many years would have very little to do. We feel certain that we would not be able to obtain cases from local millers when the season gave us a big crop. If millers used box cutting machinery also for other work they would be sure to give preference to their regular customers, and our perishable fruit would spoil.

The Australian box is cut largely from second-hand timber, old cases in which motor cars have been imported, as well as other old packing cases, being largely used. Because its boards are comparatively thin they are not nearly so liable to warp, and because the box is made up from a number of narrow pieces, mill-waste can be used. All this enables the box maker to prepare stocks in advance. He cannot do this with the Canadian type case, but the Australian box means ruin to the fruit industry.

Even if the importation of cut shooks is prevented by heavy duty, as is requested by the local box maker, he would not make Canadian cases. All he could do would be to cut the imported timber to size because the cases are made up in the orchard, not made in his factory as is the case with the Australian box.

We are convinced that if we are not able to import Canadian box timber cut to size in shooks, the bulk of orchardists will have to continue the use of the unsuitable Australian case which has done so much harm to our industry.

Fruit case making is only a very small part of the box makers business in Australia, so that his chief occupation is not very seriously threatened by our importation of fruit case shooks. And we still use Australian nails and Australian labour in making up the cases. It is only the machine work which is done in Canada.

We would point out that our fruit season comes six months after the American season. This enables the Canadian mills to cut our case timber during their slack period and ensures our being able to obtain necessary supplies at the right time. On the other hand the Australian box maker would have to supply our requirements during his busiest time, and we would certainly have to wait.

What the Australian box maker wants is to prevent our getting the only type of case which will suit our trade, and so compel us to use what it suits him to supply. We feel certain that he cannot economically supply the Canadian type case.

However it is only our better class fruit which must necessarily be packed in Canadian cases. We nearly all put up our lower grades in Australian cases, and these are obtained from the local maker.

As the Canadian type case is a very special package and not used for general packing, we think that the Government might well allow the shook timber for these cases to be imported free of all duty.

We would point out that there is very little margin of profit in fruit growing. It is only the last sixpence which comes to us as a profit. Often fruit is sold at an absolute loss. Nearly all the orchardists' returns have to be devoted to labour, and the cost of producing and marketing his fruit. A small increase in the cost of the case or in any other item, may easily result in his years work showing no return.

We ask that the Canadian type fruit case be reduced in cost in every possible way, so that orchardists may have a chance of earning a fair return and improving their industry, and building up the export trade in high quality fruit.

# TASMANIA.

Bitter Pit Investigation. Agricultural Ministers' Conference.
News and Notes.

*(By Our Correspondent.)*

THE FRUIT HARVESTING season is nearing its close, and growers are generally congratulating themselves on the even weather conditions that have been experienced.

The bulk of the mid-season varieties are harvested, and there only remains a small quantity of Sturmers and French Crabs in the later districts, which are being left on the trees to fully mature.

**Throughout the shipping period the comment upon the quality of the exports, packing, etc., has been most satisfactory.** In a few cases, it has been necessary to hold up consignments, but the majority have generally proved a credit to the producers.

From reports which are to hand, full use is being made of all cold storage space available, as there is every indication that prices will considerably appreciate upon interstate markets as the season advances.

**Overseas Shipments.**

The prices which are being quoted in the cable reports for consignments upon the earlier boats are satisfactory, and show a fair average profit to the grower.

The costs of putting a case of fruit upon the London market from an average orchard total in the vicinity of 11/- per case, if allowance is made for cost of production, transport, packing and all legitimate charges. The overseas Apple exporter carries one of the biggest risks amongst commercial undertakings, the producers represent a very large factor amongst the Tasmanian community. **There is every indication that a prosperous season is before them, after the long sequence of unsatisfactory ones that followed the war. This will have a stimulating effect upon the industry, and hearten many who were inclined to take the extreme pessimistic outlook.**

**British Empire Exhibition.**

Returns are to hand in respect to the consignments of fruit which were forwarded for the British Empire Exhibition (1924). These have been long delayed, and evoked considerable adverse criticism from those who contributed. The average return received, viz., 14/10 per bushel, is very satisfactory, considering the fruit was sold after being displayed. Certain medals and certificates are being awarded by the Commissioners to those who forwarded consignments.

The arrangements for 1925 are that the fruit be purchased at a price f.o.b. Hobart. The early quotas in this respect have been forwarded, Tasmania also supplying an additional amount in place of a State that was unable to contribute.

**Bitter Pit Investigation.**

Mr. A. J. Smith, M.A., who has been appointed by the British Food Investigation Board to conduct research work in respect to the development of Bitter Pit amongst fruit cargoes, will be shortly proceeding to England. During the course of his stay, Mr. Smith has had the opportunity to familiarise himself with Australian cultural conditions, which should materially assist him in making his investigation.

The problem of Bitter Pit is one that has already received a great deal of attention by scientists, but so far very little has been deduced as to the actual causes and possible means of control.

**The investigation is confined to the development of the disease after the fruit has reached the point of export. The general opinion is that a satisfactory solution can only be found by an investigation in the causes of its occurrence in the orchard, practical experience showing that even if its development can be retarded by specific cold storage treatment, the disease will quickly become evident during the period of receiving and sale.**

**American and Canadian Shipments.**

Owing to the shortage of the American crop, several enquiries have been received from both Canada and America for supplies, especially during the months of June and July. **A number of Huon growers are making arrangements for a trial shipment, which will go to the Eastern States via the Panama Canal.** A quantity of fruit is also finding its way to Eastern markets, particularly Hong Kong, Sourabaya, and Singapore. At present all such shipments are forwarded via Sydney.

**Conference of Ministers of Agriculture.**

This will be held in Hobart during the month, Ministers from all States being present except N.S.W. and S.A. A number of important matters are down for discussion, including:—

Co-ordination amongst States to Control Fruit Fly.

Grading of Fruit for Inter-State and Overseas Markets.

"Guarantee of Contents" Brand.

Research Work in the Carriage of Cargoes.

Establishment of a Plant Breeding Institute.

It is a pity that arrangements could not be made for this Conference to follow the meetings of the Australian Fruit Council.

The matters under discussion could then be considered from an Australian viewpoint, and referred to the different States to decide how the resolutions can be best put into practise. Under the present arrangement "the cart is put before the horse," and a lot of unnecessary duplication and discussion arises.

**Fruit Shows.**

**Exeter, W. Tamar.**—The Exeter Show was held under ideal weather conditions on the 28th March. Owing to the unfavourable season experienced in the district, the display of fruit was not so comprehensive as in previous years. The following are the exhibitors gaining awards in the principal classes:—

Case Fruit.—Five cases of Apples suitable for export (championship of Tamar Valley).—F. Walker, Lalla, 1.

Four Cases of Apples, wrapped and packed for Sydney Market. — F. Walker, Lalla, 1; N. D. Wivell, Sidmouth, 2.

Best Case of Fruit in the Show.—J. Fulton, Legana.

Three Cases of Apples, packed for Overseas Export.—J. Fulton, Legana, 1; H. K. Gerrard, Legana, 2.

Plate Fruit (six varieties of export Apples).—F. Walker, Lalla, 1; P. R. Beauchamp, Rosevears, 2.

Four Plates of Apples.—N. D. Wivell & Son, Sidmouth, 1.

Five Plates of Export Apples.—N. D. Wivell, Sidmouth, 1; F. Walker, Lalla, 2.

Other successful exhibitors in the fruit section were as follows:—S. A. Wellington, Beaconsfield; W. Kerr, Exeter; Campbell Bros., Winkleigh; Misses Medwin, Woodlawn; W. C. Gowans, Glengarry; and W. D. Weston, Exeter.

Messrs. W. H. Calvert, M.L.A., Huonville, and Mr. H. A. Turner, Assistant Fruit Expert, acted as judges.

**Rocherlea Show, E. Tamar.**—This is a Show which is increasing in popularity each year. Competition was keen in all sections, the judge (Mr. H. A. Turner, Assistant Fruit Expert) having difficulty to make the awards.

Case Fruit, Best three cases of export Apples.—R. Burns, Karoola, 1; F. Walker, Lalla, 2.

Best Three Cases Jonathans.—R. Burns, Karoola, 1; F. Walker, Lalla, 2.

Case of Apples, packed by children attending Department of Agriculture Classes, St. Leonards and Lilydale Schools.—Margaret Burns, 1; F. Walker, junr., 2.

Case of Apples, packed by children attending Department of Agriculture Classes, Rocherlea and Newnham Schools.—Ellen Millwood, 1; Isabelle Percy, 2.

Successful exhibitors amongst the plate section were:—F. Walker, Lalla; Archer Bros., E. Tamar; J. Fulton, Legana; C. Tompson, Newnham; O. E. Hall, Legana.

Shows were held at Huonville on April 22nd, and at Launceston on April 23rd and 24th.

The Cygnet Show is to be held on May 13th.

# WOOLLY APHIS PARASITE.

(Aphelinus Mali).

## Successful Introduction into Western Australia.

### Beneficial Results Anticipated.

(By L. J. Newman, Economic Entomologist)

THERE ARE ENCOURAGING indications that this little internal parasite has taken an effective hold in several districts. It is a little over 12 months since we received our first consignment from New Zealand. We have, however, succeeded in establishing the wasp in several good Apple centres, and look forward with confidence to great good resulting from its introduction (writes Mr. L. J. Newman, Western Australian Government Entomologist in the W.A. Journal of Agriculture).

Dr. Tillyard, of New Zealand, reporting recently on the work of this parasite in the Dominion, makes the following statement:—"It is a memorable fact, that after only three years from the date of the introduction of Aphelinus, the parasite has succeeded in practically

**eliminating the Woolly Aphis**

from large areas of orchard country in New Zealand. The unexpected and almost phenomenal success recorded from all parts of the country, is due to several causes, but in the main to the fact that the strain of Aphelinus which is being propagated is exceptionally vigorous, owing to its being a cross between varieties taken from three widely separated parts of the United States."

Having established this same strain locally, there appears to be no reason why we should not get equally effective results here in Western Australia as in New Zealand. The host aphis flourishes under local conditions, so that a shortage of natural food supply cannot be possibly advanced as a reason for failure, should the experiment so prove to be.

Many people are very impatient in regard to the work of an introduced parasite. They expect to see almost at once, a magic reduction of the pest. The fact that the aphis is present in millions in an orchard before the few hundred parasites are introduced, and the continued increase of the pest is rapidly taking place must not be forgotten by such persons. It takes some considerable time for the parasite to accommodate itself to the new climatic and other conditions. It then has to commence reproduction sufficiently fast to overtake the huge lead which its host has on it.

The New Zealand growers are satisfied with the results, not of one year, but of three years. The fact that we were able to successfully establish this beneficial parasite with one introduction, I consider an excellent omen of its future possibilities as a controlling factor of the most dreaded Apple pest existing within our State. The establishment of this parasite may mean the saving of many thousands of pounds spent at present in necessary spraying, and is therefore of great economic importance.

During the first year of distribution we were enabled to forward to applicants 120 colonies. The parasite was distributed per medium of twigs carrying parasitised Woolly Aphis. This method entailed the cutting of much wood from the trees supplying the twigs and cannot be continued, as the source of supply will not stand it. It will therefore be necessary for this office to collect the material and breed out the parasite, which will be sent out in tubes. The Department of Agriculture desires that the tubes be returned. Each colony supplied will be accompanied by instructions.

Growers who have the parasite established in their orchards can largely assist the Department in the spread and dissemination of this beneficial insect by permitting their neighbours to obtain cuttings carrying parasitised aphis. The long distances over which the parasite has to be sent makes it difficult to get to its destination alive. If, therefore, some grower in the district has it established, it is comparatively easy to transfer the parasite, per medium of cuttings, from orchard to orchard.

**Successful introduction**

is more likely to follow this method, than by forwarding the wasp in tubes all the way from Perth.

The presence of the parasite can be readily determined by a careful examination of the aphis. If upon such examination you find the dead swollen dark bodies of the aphis, devoid of the natural woolly covering, you can decide that the parasite is at work. Later these swollen bodies will be seen to have a hole in them. This is made by the escaping adult wasp, after having completely demolished her host and used the skin of same to pupate in. Such material containing these swollen bodies should be selected for transference of the parasite to another part of the orchard or to some neighbouring orchard.

It is surprising how the efficiency of a parasite and its rapid distribution can be increased by its artificial transfer from tree to tree or orchard to orchard. By the growers assisting each other in this manner, much labour, time, and inconvenience will be saved both themselves and the Department.

The Entomological Branch has a large number of applications for this parasite, and would therefore be glad to hear from any orchardist having the parasite established and who would be willing to supply cuttings carrying same. With a view to assisting this plan of distribution, a list of orchardists already supplied with the parasite is appended.

Having heard of the successful establishment of Aphelinus mali in this State, we have just received applications from the States of Victoria and Tasmania for colonies. We have had the pleasure of forwarding the material requested, and hope that success will follow.

The undermentioned are growers to whom the parasite has been supplied: —Price, T., "Illawarra Orchard," Karragullen; Enwright, G., Mount Barker; Willmott, F. E. S., Bridgetown; Booth, A. T., Mount Barker; Martin, J. Mount Barker; Omrah Orchard, Mount Barker; Thomas, E., Carbarup; Simmons, J., Denmark; Hill, L., Kalgan River; Ottaway, K., Bedfordale; Howatson, L. B., Bedfordale; Markham, A. J., Harvey; Fields, P. J., Coolup; Mann, J. H., Coolup; Watson, E. Mundaring; Seymour, C. G., Busselton; Ottaway, K. A., Bedfordale; Thorp, A., Donnybrook; Cross, B., Bedfordale; Lowe, A. S., Bridgetown; Richardson Bros., Wooroloo; Hill, E., Bridgetown; Davern, T., Lowden; Watson, H. G., Argyle; Dempster, W., Argyle; Williams, T., Carbarup; Skinner, J., Carbarup; Sounness & Sons, Mount Barker; Sparks, O., Bridgetown; Cullen, A., Bridgetown; Stephens, E. F., Wooroloo; George, W. J., Brunswick; Jones, T. Mumballup; Eccleston, E., Boyanup; Arkle, A., Bridgetown; Parke, G., Donnybrook; Simpson, G., Karragullen; Cosgrove, G., Parkerville; Robinson, H., Wooroloo; Walker, J. K., Duranillin; Messrs. Braddock & Young, Bridgetown; Dickson, G. A. & Son., Boyup Brook; Stark, J. B., Boyup Brook; Faulkner, J., Kalamunda; Grasby, W. C., East Guildford; Perkins, L. S., Tenterden; Hayward, G., Albany; Pearse, W., Sawyers' Valley; Scott, W., Mount Barker; Lang, J., Capel; Joel, Drs. S. & Sons, Dardanup; Wrench, F. M., Bridgetown; Ozanne, C. H., Bridgetown; Buckeridge & Davies, Torbay; Warburton, Edward, Mount Barker; Foley, W. E., Upper Blackwood; Gray, S., Warren River; Egan, A. J., Bedfordale; Skewes, N. L., Bedfordale; Nelson, F. O., Balingup; Spencer, H. E., Bulading Siding; McRae, J., Kalamunda; Stark, F., Kalamunda; Blakers, C. Manjimup; Davies, George, Capel; Patoni, J., Donnybrook; Morris, S. A., Dwellingup; Folland, C. W., Williams; Perkins, S., & Sons, Tenterden; Clontarf Orphanage, Victoria Park; Nicholson, T., Albany; Hubery, F., Bridgetown; Gibbs, P. W., Granite Hills, via Kirup; Barnes, F. R., Kelmscott; Calder, W., East Guildford; Gruer, A., Dwellingup; Mr. Owen, Mahogany Creek; Wardell-Johnson, Sawyers' Valley.

# Fruit Growing Under Irrigation.

## Dipping Methods Contrasted : Pruning : News and Notes.

*(By Our Special Correspondent.)*

THE finishing off of the dried fruit harvest has been the principal work carried out during the past month. The weather has been ideal for the finishing off process, bright, warm days with light winds being experienced.

The dried vine fruit packs are in advance of last season, with perhaps the exception of some of the Currant pack, the quality being far superior. The presence of dark berries damaged by the rains which fell in January, has had the effect of giving much of the Sultana and Lexia pack a somewhat mottled appearance.

The contrast in colour of the sound and damaged berries is more noticeable in the cold dipped fruit than in the hot dipped.

There is no question that given good sound fruit an excellent sample in both quality and colour can be obtained by the cold dip. That the hot dip will be entirely dispensed with in the near future has yet to be proved. By improvements in the method of dipping with the hot dip, many growers are turning out an excellent quality Raisin of a bright colour.

In the past the view has been held that to produce the best Raisin it was necessary to slightly crack the skin of the Sultana around the stem end, and the Gordo to show fairly large cracks across the berries. From recent investigations growers are finding that such a practice is not in the best interests of producing light coloured fruit.

Temperatures in the past have been too high and the length of immersion too long, and the strength of the dip in many instances too strong. Growers are finding that the dip should be kept between 192 to 200 deg. Fahr., the fruit should be passed through the solution very rapidly, the quicker the better, the strength of the dip must vary according to the condition of the Grapes; if minute cracks are showing on the berries more water should be added to the solution.

The dip may vary from 1 lb. Caustic Soda to 25 to 40 gallons of water, some growers this season have even dipped at much weaker strengths with excellent results.

The question then arises, and is one that will probably decide the use of cold or hot dip for export fruit, that is, will the fruit treated by the hot dip method sugar out to a greater degree than that passed through the cold emulsions. This question will probably apply to a larger degree with Lexias than with the Sultana, as the damaged skin of the Lexia has in the past allowed the escape of the juice and the consequent sugaring of the fruit.

Our Lexias after a few weeks in the boxes have, when opened up presented a more or less dull greasy appearance due to the accumulation of the fruit sugars on the outside of the berries. Doubtless the sugaring of the fruit is accentuated by the stemming process and pressing the fruit into the boxes, these points are worthy of further investigation and may lead to an improvement in preparation of the fruit for the market.

### Distilling Fruit.

The distilleries are now busy receiving and treating the Doradillo and Gordo Grapes for spirit and wine. The Doradillo crop does not promise to be as heavy per acre as last year, but the total tonnage may be greater owing to the larger areas coming into full bearing.

Last season great difficulty was experienced in getting the Grapes up to the required Beaume test of 12 degrees. Some of the fruit did not reach more than 9 degrees; this was due to the unseasonable weather, the absence of bright sunshine experienced last season during the ripening period.

With the beautiful warm weather which has extended into the middle of April, the Grapes have developed rapidly, and the sugar contents have increased, there being no difficulty in recording 13 to 14 degrees Beaume from the must of the Doradillos.

### Pruning.

The pruning operations will commence during May. Where the trees and vines are planted in what are known to be frost pockets, the pruning should be left as late as possible. Early pruning means that the plants will burst into leaf earlier than where the pruning is delayed. This is an important factor where heavy frosts are liable to occur, as the bursting of the buds may be delayed until after the danger of frost has past.

The season just past was a very good one for stone fruits, the Apricots, Peaches and Nectarines carried heavy crops, consequently one may look for light crops during the coming season. If one follows out the advice of older growers, much can be done in equalising the bearing habits of trees. The sound advice is **"prune heavily when a heavy crop is expected, and lightly when a light crop is anticipated."**

Following that advice, growers would be advised to prune lightly this winter. Light pruning does not mean no pruning, but means the leaving a greater percentage of fruit wood than would be the case when a heavy crop is expected.

Cut away all dead and spent fruiting wood, and where the fruiting laterals are over crowded, some should be removed.

In the case of extended and much sub-divided laterals, especially in the case of the **Apricot**, some of the subdivisions should be removed to strengthen those that are retained. Where the laterals keep on subdividing and are left untouched, they gradually become weaker and weaker, and eventually die, leaving blank spaces on the arms; these spaces are difficult to refurnish.

The refurnishing of the **Peach** is a very important part of the pruning operations. The Peach carries its fruit on wood produced during the previous summer, consequently the pruner should ever bear in mind that provision should be made to replenish the fruit wood for the next season's crop.

Careful pruning not only tends to produce good fruit during the current season, but makes provision for suitable fruiting wood for the following season.

By careful cutting back of a proportion of the last year's lateral growth to the base buds, these buds are forced into growth in the spring, and produce fruit wood during the summer, which can be used for fruiting, bearing at the next pruning season.

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The Annual Conference of River Murray branches of the Agricultural Bureau of South Australia will be held at Waikerie on Wednesday and Thursday, May 20th and 21st.

The Conference promises to be one of the best yet held; delegates are expected from all centres from Murray Bridge to Renmark. All growers, whether members of the Bureau or not, are welcome to the meetings. The subjects will be dealt with by visiting experts of the Agricultural Department, and by delegates from the various branches.

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### Cherries in Brine.

The New South Wales Fruitgrowers' Federation is actively protesting against the proposal to reduce the present duty on Cherries in brine, believing that if the duty is reduced, the Australian market will be flooded with Italian grown Cherries.

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### Is This Yours?

We have received a letter, without a signature, from one of our readers at Ambleside, South Australia. The letter is dated 23/3/25. We would be glad if the writer would communicate with us, so that we may credit his subscription with the cash received.



# THE "Sunraysed" Courier



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South Australian Secretary — Stan. Oldham.
**London Manager:** W. P. Caro.

INTERESTING items of news are to hand from the Australian "Sunraysed" Headquarters. The Secretary of the Australian Dried Fruit Association, Mr. W. N. Sumner, advises thus:—

### Our London Letter.

Pending the arrival of our London Manager (Mr. W. P. Caro), the Association's interests are being represented by Mr. R. L. Barnes at Australia House. Arrangements for making our Dried Fruits Section an exhibit worthy of the industry have been in train for some time. Mr. Barnes writes as follows:—

"Recently I had an opportunity of discussing our section with Mr. Lee Neil, the new Special Commissioner for the Australian pavilion of the Empire Exhibition. It was very helpful and much good will result. As we intend making an early start, to be quite ready for the opening day, I have already secured the necessary stands for our displays, dioramas, and sales kiosks. I made application for them some time ago and have obtained excellent positions. With regard to window displays in retail shops in London, I have to report that a number of the big stores still have our special vineyard scene displays in their windows. These are proving most interesting "attractions" and good business is anticipated with the arrival of our New season's fruit. We are preparing already a very comprehensive itinerary of special dried fruit displays which, running simultaneously with Wembley will be splendid publicity for us, with inestimable benefit to sales as a considerable quantity of our stuff will be cartoned."

## MELBOURNE ACTIVITIES.

Although the work of the Melbourne office has been considerably curtailed, that does not mean that the propaganda, so vigorous last year, has ceased altogether. The Association is doing all it can reasonably be expected to do under the altered conditions.

At the present time we are working in active co-operation with the "Made in Australia" Council and the Australian Natives Association.

This Council decided upon Elsternwick for a "shopping week" during which all shopkeepers will push Australian made goods and housewives will be urged from platform and screen to

"Buy Australian Made
Wherever they Trade."

The Association is assisting with two large dried fruit displays in the windows of Elsternwick grocers, and a film on the dried fruits industry will be screened at the local picture theatre throughout the week.

Other window displays are being shown throughout the season in a number of suburbs, though not on the same scale as last year.

## SYDNEY SHOW.

### Cartons Sell Well.

Our Sydney representative (Mr. Leo. T. Pearce) writes that the Association's display at the Royal Show was most successful. The takings at the "Sun-raysed" stand for the nine days amounted to £123.

The sales of fruit were as follows (in 12oz. packets):—Sultanas, 340; Currants, 144; Apricots, 76; Seeded Lexias, 471. Sultanas, 5,568 2oz. packets. Raisin bread, 1,322 loaves.

The display was very highly commended, specially by the bakers, as the sales of Raisin bread gave a fresh filip to the trade.

They were supplied wrapped and labelled by Mr. Jas. Grant, and the public have expressed appreciation of this hygienic method, which should be very successful.

### All-Australian Exhibition.

The Sun-Raysed brand is much in evidence in this big Exhibition now on in Adelaide. Sales of fruit, particularly the 3d. carton, have been good, and there is every prospect of them continuing.

## THE LONDON AGENCY.

### Export Board's Appointments.

The London Agency, authorised under Section 11 of the Dried Fruit Export Control Act, has been established. The personnel will consist of three members and a Secretary, and the following business men, well known in London commercial circles, have been appointed. Sir Jas. Cooper (Chairman and Government representative, who is Vice-Chairman of the London Board of Directors of Bawra; Mr. Farran, who represents the Mildura Co-operative Fruit Co. Ltd., in Great Britain; Mr. A. E. Gough, who is the London Manager of the Overseas Co-operative Federation Ltd. The Secretary is Mr. F. L. McDougall, well known to growers along the Murray.

The Agency will be in constant communication with the Australian Board of Control, and all contracts made for the sale of Australian dried fruits must be approved by the Agency as regards prices and conditions.

### Apricots in Cartons.

A most attractive carton for dried Apricots has been adopted by the Association, and will be in two sizes, holding 12oz. and 8oz. nett. As the fruit has been specially selected, it is anticipated that the cartons will have an excellent reception by both trade and public.

## "SUN-MAID" TRADE MARK.

### Suit for Infringement.

Recently the California Seedless Raisin Coy. were sued by the Sun-Maid Raisin Growers Association of California for infringing their trade mark rights and entering into unfair competition by the use of a carton similar to Sun-Maid's with the name "Sun-Rayed" upon it.

In the suit the Sun-Maid Growers were successful, and a restraining order was issued prohibiting the use of the Sun-Rayed carton. The Sun-Maid Growers also claimed damages amounting to 55,000 dollars.

Members of the Australian Dried Fruits Association who pack and market their fruit under a somewhat similar brand to "Sun-Rayed" will doubtless be glad to know that their rights are fully protected both here and in New Zealand. The "Sun-Raysed" brand has been successfully registered, also in Canada and in the British Isles.

### Council to Meet.

Arrangements have been made for a special meeting of the A.D.F.A. Federal Council to take place on Wednesday, May 27th.

The principal matter to be considered will be the scope of the future operations of this Association. The Board of Management will meet in all probability on the Tuesday before the Council meeting takes place.

## DRIED FRUIT SPECIALITIES.

### Need for Development.

### Some Helpful Suggestions.

### (By a Correspondent.)

The necessity for the establishment of a branch or department of the Raisin marketing organisations, which would have as its special function the investigation of the possibilities of Raisin specialities is becoming more pronounced as production increases.

If such a department were created, it could at once set to work to experiment with Raisin products with the object of ascertaining the commercial possibilities of their production on a scale warranted by the quality and size of the ever increasing output from the Raisin districts.

The field would seem to be a most extensive one even taking a cursory view.

Already such special lines as Raisin butter, Raisin honey, Raisin conserve, Raisin-Nut mixture, and Raisin mince, are making their appearance in retail shops.

It must be assumed that their production is profitable to those who have launched out in this way, and the enterprise of the firms responsible is to be commended.

At the same time, in view of the dire need of growers to have every possible market or outlet explored and utilised for the relief of their national industry, the possibilities of special lines should not be lost sight of.

Even under the present form of administrative direction, a commercial chemist could be retained to experiment and report upon the possibility of developing on a commercially profitable basis such a line as a high grade Raisin syrup, which would meet all the requirements of the best trade—for the most exacting housewife, as well as for the bakers.

Pear Spread and Apricot butter are other lines capable of considerable development, but experiments are necessary.

In the confectionery field the lines are legion: to mention just a few such as Raisin fudge, Raisin chocolate creams, chocolate Raisin bars, and chocolate coated Raisin-nut mixtures, will serve to indicate the possibilities in this direction.

Admittedly confectionery will never be the means of using any very great quantity of Raisins, but "every mickle makes a muckle," and the public taste could not be developed and educated in a more palatable fashion.

Without doubt a great many difficulties would be met with in attempting to perfect lines of this nature in commercial quantities.

It would take time and money, but it would be well spent.

To instance Raisin bread, through which medium many hundreds of tons of Lexias were sold profitably, which would otherwise have gone in all probability out of the country to be sold at a loss, is to indicate what can be done in the direction of "specialities" which will bring much needed relief.

**Yet Raisin bread, after 14 months' effort, is still in the experimental stage with most bakers.**

Amongst the by-products in addition to those enumerated above, which already make a most formidable list for an experimental programme, there are such things as

**Cream of Tartar,**
**Stock Feed,**
**Fertiliser,**

and probably others which would undoubtedly be means of getting rid of vast quantities of Raisins which are at present dumped on the market and sold at a ruinous loss to the unfortunate grower.

The possibilities in front of a properly directed and thorough investigation along the lines indicated are as great as the seriousness of the position confronting growers.

The only fruit that has any hope of returning a payable price to Australian growers on the London market is the absolute-top-grade of fruit perfectly packed and graded to a nicety.

The lower grades of both Sultanas and more especially the despised Lexia, must be turned to some commercial use in another form. This would not only serve to stop the present rot, but even give growers a profitable return.

## COLD DIP PROBLEMS.

The work of the Merbein (Vic.), Research Farm during the past year has been invaluable to growers, and a great deal of the credit for the splendid samples of cold dipped fruit brought to the sheds already this season, goes to Scientist A. V. Lyon and those assisting him. It remains to be seen whether the cold or the hot dip processes are productive of better quality in the finished fruit with a resultant higher price.

The first returns from London will be awaited eagerly, as considerable improvement is hoped for. Scientist A. V. Lyon writes us as follows on the question of the relative merits of the various grades of potash on the market that are suitable for the cold dip process:—

"In answer to your recent inquiry I will submit the following particulars as an addition to the reply furnished some time ago by my assistant Mr. Thomas.

"The material used in this district was, in general, a fairly high grade of Potassium Carbonate. From what I can gather from the Greek workmen they describe their potash as **"Blue Potash."** We are getting samples of this for next year, and I expect that it will not be so pure as the supply that has been used this year.

"We have yet to determine whether the purified Potassium Carbonate gives the best results. This can only be determined when we have a variation in the quality of our supplies. The success achieved with **extract of ashes** may possibly be an indication that pure Potassium Carbonate is not so successful as a mixture of salts.

"In general, however, I may say that there was no trouble in this district due to the quality of the Potash. "We hope, when the season's experiments are completed, to exhaustively discuss the 'cold Dip.' In general, results in this district have quite come up to expectations."

Of the more serious factors of individual character, foresight and imagination are the most essential. They stimulate protection against troubles and provide against future difficulties.

# Fruit Marketing in Queensland.

## Committee of Direction Sued by Agents and Growers.

### Verdict for Plaintiffs

"Committee of Direction has not the Power it claims," states Supreme Court Judge.

THERE IS TROUBLE in Queensland in regard to the actions of the Committee of Direction constituted under the Fruit Marketing Organisation Act.

When it was decided by the Committee of Direction (generally referred to as the C.O.D.) to conduct a Tomato pool, all Tomatoes to be consigned or delivered to the C.O.D., an agent who sold Tomatoes independently was sued for so doing. The case was dismissed by the Police Magistrate, on legal grounds only, as the plaintiffs failed to prove that the Tomatoes were grown in Queensland.

When the C.O.D. decided to sell Bananas, it issued instructions that no Bananas could be sold independently. Even the Railway Department was instructed by the C.O.D. to take no notice as to the names of consignees, but to deliver all the Bananas to the one distributor—the Committee of Direction.

An agent, H. L. Wool, in pursuance of his business, continued to sell Bananas, was sued by the C.O.D., and was fined £10. An appeal has been lodged calling on the Police Magistrate and the Committee of Direction to show cause why the conviction should not be quashed, on the ground that no offence was disclosed. An order nisi, returnable in the Full Court on May 5th was granted.

The next stage in the legal battle was when certain agents and growers took action against the C.O.D.

As a result Mr. Justice Macnaughton in Chambers on March 27th granted Robsons Ltd., William Cripps, Roland M. Cooper, John Murray, John Houghtly, Jacklyn H. Wilmington, George Edward, and William John Smith **an interim injunction restraining the Committee of Direction** for Fruit Marketing and its servants or agents from preventing plaintiffs from conducting the business of farm produce agents, auctioneers, and merchants for the sale of Queensland grown fruit, in particular Bananas, or from receiving and offering for sale and selling by auction or otherwise such fruit.

The injunction was granted till April 16 or further order, subject to plaintiffs giving the usual undertaking as to damages.

The solicitor for the plaintiffs said subsequently that the plaintiffs, other than Smith, were suing as representatives of all fruit and produce agents in Queensland, and that Smith was suing as the representative of all growers of fruit in Queensland. The effect of the injunction was that it gave both fruit and produce merchants and fruitgrowers full liberty to carry on their business as heretofore without any hindrance on the part of the Committee of Direction.

### Is Federal Constitution Infringed?

### "High Handed Action."

Legal proceedings were continued in the Supreme Court on April 3.

Mr. Justice Macnaughton said that he had been looking into the question of the **sale of fruit outside the State, and it seemed that a serious question of infringement of the Federal Constitution was raised.** The matter might have to go to the High Court.

Mr. Stumm, who appeared for the agents and growers, said that summonses had been served by the Committee of Direction on three fruit agents selling Bananas.

Mr. Justice Macnaughton: If this is an instance of their high-handed action, I feel inclined to grant the injunction.

Mr. A. McGill, who appeared for the Committee of Direction, said that he understood that the complaints were lodged before the present action was commenced.

Mr. Justice Macnaughton said that the Committee certainly ought to have held its hand until the matter was settled. He wanted to have these facts stated on affidavit. To put it mildly, it showed great want of tact.

Mr. McGill submitted that it did not.

Mr. Justice Macnaughton: I say that it shows great want of tact. I will say nothing further at present.

The hearing was adjourned.

### INJUNCTION GRANTED.

### Supreme Court's Far-reaching Decision.

Reserved judgment was given for the plaintiffs on April 9th by His Honour, Mr. Justice Macnaughton, in the Supreme Court in the two actions brought by fruit merchants and growers against the Committee of Direction.

The first action was between Robsons Ltd., and others against the C.O.D. The plaintiffs sought a declaration that the defendants were not entitled to prevent the plaintiffs from carrying on their lawful trade, and also that the C.O.D. was not entitled to seize or divert fruit consigned to the plaintiffs, nor to hold itself out as the sole trader in Bananas.

The second action was brought by Henry William Collins, a fruitgrower, on behalf of himself and all other producers of Queensland grown fruit, who claimed to be entitled to send their fruit to duly licensed agents, or to any other person, and (b) by R. Crollick Ltd., who claimed the right to sell.

His Honour stated that judgment would be entered for plaintiffs in both actions, with costs. His reasons would be delivered later.

### The Decision Cheered.

When the news was received at the fruit sales of the winning of the legal actions by the agents and growers against the C.O.D., there were loud cheers. The sales were stopped, and bareheaded all assembled sang "Rule Britannia, Britons Never Shall be Slaves."

### His Honour's Reasons.

Following on his judgment delivered on April 9, in favour of the plaintiffs in the actions brought against the Committee of Direction of Fruit Marketing, His Honor, Mr. Justice Macnaughton in the Supreme Court on April 22nd gave his reasons for his judgment.

His Honour said that the plaintiffs in these actions were either farm produce agents, licensed under The Farm Produce Agents Act of 1917, or growers of fruit in Queensland. The defendant committee was a statutory body, created by, and claiming certain rights and authority under, the Fruit Marketing Organisation Act of 1923. Practically the same relief was claimed in both actions, declarations that these rights and this authority were not authorised by law, and injunctions restraining the defendant committee from continuing to act, threaten and intend, in respect of the matters appearing in paragraphs 3, 6, and 9, of the statement of facts. The same questions arose in both actions and the substantial one, namely, the powers of the defendant committee to do what it had done and claimed to be entitled to do, namely, to take the business of selling fruit and vegetables out of the hands of the growers and the agents selected by them, and to dispose of all fruit and vegetables itself, was fully argued. It would be seen that the substantial question was of the greatest importance to all fruitgrowers in the State, as well as to all farm produce agents, as the ex-

pression, "farm produce," in the Farm Produce Agents' Act of 1917, by section 2, included fruit and vegetables. The parties naturally desired to obtain the decision of the High Court of Australia upon it as soon as possible, and with that object agreed upon a statement of facts, and also to treat the hearing before His Honour as the trial of those actions upon that statement.

**Plaintiff's Contention.**

Stated shortly the contention of the plaintiffs, said His Honour, was that the Fruit Marketing Organisation Act empowered the defendant committee to regulate the existing methods of marketing fruit by growers and produce agents, **but did not empower it to take those processes out of their hands altogether, or sell or otherwise deal with fruit itself or by its agents.** The contention of the defendant committee was that it had

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ample power under the Act to do all that it had done or claimed to be entitled to do, as was set out in the statement of facts. It was necessary, in order to decide the question, to examine the Act very closely. In doing so this principle must be borne in mind: **Under British law every person is entitled to enjoy his personal liberty and to make free use of his property, except so far as he is controlled by some law."** (Co-operative Brick Co. Ltd. v. Mayor of Hawthorn, Q.C.L.R., per Griffith, C.J.).

The plaintiffs relied on a series of decisions of the highest authority, which showed that a power to regulate, govern, or control a trade did not, in the absence of an express power of prohibition authorise a statutory body, such as the defendant committee, to make it unlawful to carry on a lawful trade in a lawful manner, although under certain circumstances particular trades or particular Acts relating to such trades might be prohibited. The first case was the Municipal Corporation of Toronto v. Virgo, 1896, A.C. 88, where the question was the validity of a by-law prohibiting hawkers from plying their trade in an important part of the municipality. In that case it was decided that there was a marked distinction to be drawn between the prohibition or prevention of a trade and the regulation or governance of it, and indeed a power to regulate and govern seemed to imply the continued existence of that which was to be regulated or governed.

**Authorities Quoted.**

His Honour then dealt with several other authorities quoted by counsel for the plaintiffs. He then went through the relevant provisions of the Fruit Marketing Organisation Act. After considering the definitions of the terms "regulate" and "organisation," it seemed to His Honour that both the long and the short titles of the Act contemplated the putting into systematic form, or arranging an existing business, that of marketing fruit, and not starting a new business by the defendant committee itself. His Honour pointed out that where the Legislature intended to give power to prevent or prohibit anything, it usually did so by express words, as Lord Dudley said in the judgment in Virgo's case. His Honour then referred to some instances of express prohibition of carrying on business or trade contained in recent Commonwealth and State legislation. One well-known instance was furnished by the operations of "Bawra" in realising the whole Australian stocks of wool over a period of years. That was done under the War Precautions (Wool) Regulations 1916. In these Regulations 10 provided that no person should sell any wool or tops except through or with the consent of the Central Wool Committee, or otherwise in accordance with the Regulations. There was no provision resembling that to be found in the Fruit Marketing Organisation Act. The Wheat Pools Act of 1920 was even more directly in point than the Wool and the Dairy Produce Regulations and the Acquisition of Sugar Act.

**Defendant's Authority Denied.**

"In my opinion," said His Honour, "if the Queensland Legislature had intended to confer upon the defendant committee the powers claimed by it, it would have done so in express terms similar to those contained in the Wheat Pools Act passed only three years before the Fruit Marketing Organisation Act." In conclusion His Honour said that he had considered the broad question of the legality or illegality of the defendant committee's claims as a whole. He was of opinion that following the principle laid down in Virgo's case, and the other authorities cited above, and after considering the whole of the Fruit Marketing Organisation Act **in the light of those decisions, the defendant committee had not the right and authority it claimed,** and that the plaintiffs were entitled to the judgment in both actions. There would accordingly be judgment for the plaintiffs with costs. He reserved the case for further considerations with liberty to apply.

Mr. C. Stumm, K.C., with him Mr. A. D. Graham (instructed by Messrs. Atthow & Atthow) appeared for the plaintiffs; Mr. A. D. McGill (instructed by Mr. G. Webb) appeared for the Committee of Direction.

**Brisbane Press Comments.**

Following the foregoing interesting legal decision, the "Brisbane Courier" published the following comments:—

**C.O.D. Judgment.**

Mr. Justice Macnaughton, in the judgment he delivered yesterday in

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what has come to be known as the C.O.D. case, restated a very fine principle, one which affirms that under British law every person is entitled to enjoy his personal liberty, and to make free use of his property except so far as he is controlled by some law. That is the kernel of the whole case between the Committee of Direction of Fruit Marketing, the fruit-growers, and their agents. Mr. Justice Macnaughton holds that the Committee of Direction has no legislative warrant for seeking to deprive the growers of the right of sending their fruit to private agents, or for prohibiting the agents from selling such fruit on behalf of their clients.

Mr. Justice Macnaughton emphasised that whenever a Legislature intends a law to have a prohibitory effect it usually states that power in specific terms; and he holds that such force was not intended in the Fruit Marketing Organisation Act. That point may have to be decided at an early date by the High Court, because it is understood that an appeal is to be lodged against the judgment.

Should the High Court uphold the view taken by Mr. Justice Macnaughton, the Committee of Direction will still have before it a great field for useful and valuable work, for the judgment deprives it of not one atom of the authority that most people believed it would be content to exercise. The field for effective co-operation and for careful and efficient organisation is just as great as ever. The judgment merely enforces the principle that every person is entitled to make free use of his property until the law specifically says that he must not.

* * *

**Later.**—The Committee of Direction has lodged an Appeal in the High Court of Australia.

## QUEENSLAND'S FRUIT MARKETING.

### Committee of Direction Replies to Critics.

Mr. P. Airey, on behalf of the Committee of Direction, writes regarding the report in the "Fruit World" of April 1st of Queensland fruit matters:—

Mr. P. J. G. Shaw is reported as having said at a League of Freedom meeting that the C.O.D. "had violated business principles." This is about the truest criticism ever yet levelled at that body by Mr. Shaw. He undoubtedly alludes to the action of the Committee in reducing recently the commission on Bananas from 7½ per cent. to 5 per cent. Without a shadow of doubt this is undoubtedly a violation of "business principles," as understood by that critic and his friends of the League of Freedom. No one could truthfully accuse the agents of ever having descended to this kind of thing. In fact, when the Price Fixing Commissioner reduced the Commission some years ago from 10 per cent. to 7½, the agents of this city went to him solemnly in deputation and protested. And now—Five per cent.!! No wonder there is grief in the camp.

Another speaker from Nundah, one is told, gave his Banana returns for January 8th as a debit of 9d. on 66 dozen; December 18th, 233 dozen, return 11/11; January 25th, 26 bunches, return 1/3; December 12th, 39 doz., return 2/-.

This particular form of criticism is absolutely devoid of point unless the one knows the quality of fruit quoted, the state of the market, and other details. On those particular days official records here show that prices for first-class fruit ranged up to 7⅜d., 7½d., 5d., 4d., 6¾d., 4½d., 5½d., 6½d. a dozen, etc. Evidently good fruit was bringing a good price on those dates, even though the supplies were abnormally heavy.

Another critic (Mr. Ruskin) remarked pithily that agents were a "necessary evil." After this the agents may well pray to be delivered from their friends. "The Committee of Direction," he goes on to say, "was the biggest and most unsuccessful trading establishment in Queensland." . . . Considering that that Committee, quite a new institution, only 15 months old, has paid its way comfortably, and has a remarkably handsome surplus (built up without one penny of added expense to grower), to its credit this kind of criticism is poor stuff indeed, and only calculated to impose on the ignorant and unthinking.

In another section of your paper the public is given to infer that the C.O.D. is run under "State Control." This is the purest fallacy. The Committee raises its own revenues; pays its own salaries and wages; regulates its own affairs, and isn't controlled by any outside authority in any sense whatever. It is this fact, the fact that a co-operative venture can pull through the initial stages successfully, come out without financial embarrassment, and face the world in a footing of 20/- in the £, and something to the good that hurts certain noisy people in the neighbourhood of Brisbane.

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**PROMPT RETURNS**

### Montville.

Mr. T. H. Brown, Secretary of the Montville Fruitgrowers' Association, reports that continuous rains have fallen throughout the district since the beginning of the year. In three months (January, February and March) over 50 inches were recorded, which seriously hampered cleaning up of orchards, and has hindered the marketing of summer crop of Pineapples, which was a fairly heavy one.

Large areas of **Pineapples** have been planted during the past couple of years, and the fruit is beginning to come in now. A fairly heavy winter crop is showing, and prices have been fairly satisfactory.

The **citrus crop,** on the whole, promises to be better than last year, although only a medium crop will be harvested. Oranges are from fair to heavy, including Navels, and Mandarins are very heavy in places, whilst light in others. On the whole, the latter should come up to the average.

## CULTURAL HINTS.

### Queensland Orchard Notes for May.

CITRUS-GROWERS should note the extreme importance of their taking every possible care in gathering, handling, packing and marketing, as the heavy losses that frequently occur in southern shipments can only be prevented by so treating the fruit that it is not bruised or otherwise injured. It has been pointed out that no citrus fruit in which the skin is perfect and free from injury of any kind can become specked or blue-mouldy, as the fungus causing the trouble cannot obtain an entry into any fruit in which the skin is intact. Growers are, therefore, again warned of the risk they run by sending blemished fruit south, and are urged to exercise the greatest care in handling of their fruit (states the Queensland "Agricultural Journal").

Main crop Lemons should be cut and cured now, instead of being allowed to remain on the tree to develop thick skins and coarseness. As soon as the fruit shows the first signs of color, or is large enough to cure down to about from 2¼ to 2½ in. in diameter, it should be picked, care being taken to handle it very gently, as the secret of successfully curing and keeping this fruit is to see that the skin is not injured in the slightest, as even very slight injuries induce decay or specking.

All citrus fruits must be

**sweated for seven days**

at least before being sent to the southern States, as this permits of the majority of specky or fly-infested fruits being rejected.

Citrus trees may be planted during this month, provided the land has been properly prepared, and is in a fit state to receive them; if not, it is better to delay the planting till the land is right.

**In planting,** always see that the ground immediately below the base of the tree is well broken up, so that the main roots can penetrate deeply into the soil and not run on the surface. If this is done, and the trees are planted so that the roots are given a downward tendency, and all roots tending to grow on or near the surface are removed, the tree will have a much better hold of the soil, and owing to the absence of purely surface roots, the land can be kept well and deeply cultivated, and be thus able to retain an adequate supply of moisture in dry periods.

Do not forget to prune well back when planting, or to cut away all broken roots.

**All orchards, Pineapple and Banana plantations** should be kept clean and free from all weed growth, and the soil should be well worked so as to retain moisture.

**Custard Apples** will be coming forward in quantity, and the greatest care should be taken to see that they are properly graded and packed for the southern markets, only one layer of one sized fruit being packed in the special cases provided for this fruit—cases which permit of the packing of fruit ranging from 4 to 6 inches in diameter in a single layer.

Slow acting **manures** — such as meatworks manures—may be applied to orchards and vineyards during the month, and lime can be applied where necessary.


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3, 4 and 5, The Arcade, Borough Market, London, S.E.1.
G.N.R. Potato Market, King's Cross, N.1.
18, Stanley Street, Liverpool.
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Deansgate, Manchester.
17, Humber Street, Hull.
Southampton Docks, (Facing No. 45 Shed).
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South West House, Greenmarket Sq., Cape Town, South Africa.


Land intended for planting with **Pineapples or Bananas** during the coming spring can be got ready now, as in the case of Pineapples, it is a good plan to allow the land to lie fallow and sweeten for some time before planting; and in the case of Bananas, scrub fallen now gets a good chance of drying thoroughly before it is fired in spring, a good burn being thus secured.

### Palmwoods.

Mr. Frank Nicklin, Secretary of the Palmwoods' Fruitgrowers' Association, reports that the prospects for the coming crop of citrus in the district are excellent. Though not as large as usual (due mainly to the trees having a light crop), he states that the fruit is of excellent quality and size. A portion of the orchards were swept by a hail storm late last year, suffering considerable damage to fruit and trees. Owing to the splendid season however, the trees have made a good recovery.

## New South Wales

### MURRUMBIDGEE IRRIGATION AREAS.

**(By Our Correspondent.)**

Seeing the fruit harvesting on these areas has been completed, the growers are having a more easy time. The judicious settlers are obtaining a plentiful

**supply of gypsum**

so as to give their soils a nice dressing before plowing in. The gypsum that has been put on the farms and orchards during the last two or three seasons has amply repaid the settler for his outlay. Many of the settlers that have been hesitating over the application of gypsum to the ground have now completely altered their tune. Some of them prefer to throw it over the ground with a shovel (when there is not any wind about), others, a few only, are furrowing out the soil, and placing the gypsum in the furrows, and afterwards cross ploughing.

The addition of gypsum to the farms is having an added advantage—it is causing the settler to direct his attention more to the matter of soil, and its further improvement by fertilisers in the most up to date form.

The Irrigation Commission has so far only secured one mineral lease for mining for gypsum. This lease is near Yenda, and is not extensive. The Commission however, is prospecting for additional gypsum ground and if it gets one or two more of these leases, the supply of gypsum will be quickly absorbed by the settlers. The Commission is acting generously in the matter, not making any profit whatever—just simply sub-leasing the land to contractors, and regulating the price these contractors shall charge for the work of mining and carting to the nearest railway station or siding.

**Leeton Cannery.**—About one hundred girls and one hundred and fifty men are now being employed, since the rush of the season is over. The girls are finishing up Pear canning, and labelling tins, and are all local residents. The men also are local residents, and they are employing their time in jam making, stacking of tins, and on the tin making plant.

The matter of **collecting statistical information,** I am glad to say is now receiving attention at the hands of the Irrigation Commission. As far as fruit is concerned the taking of these statistics should start with the Apricots, say about six weeks before the harvesting, then the Elbertas, and the cling Peaches and other fruits; statistics could be collected several weeks before ripening also. This would put the Leeton Cannery in a position it has never been placed in yet, of having a fairly accurate knowledge of its supplies.

This is part of the essence of the carrying on of a factory in a business-like way. For marketing purposes, further plantings and information of a publicity character, it is highly essential that there should be some statistical method in areas of the pro-


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portions of the Murrumbidgee Irrigation areas. These remarks apply with equally strong force to products and utilities of general farming on the areas as well as orchards. Haphazard ways may be pardonable in the Northern Territory, but in civilised areas, one looks for a reasonable up-to-dateness.

The **Griffith Cannery proposition** still hangs fire, the Government having several propositions before it in regard to its fruit processing.

The Government is now considering whether it will enlarge the Leeton Cannery, or dispose of its surplus fruit to the private factories, or go on building the Griffith Factory.

# Conference of Ministers of Agriculture.

### Important Meeting at Hobart.

### Fresh Fruit Export Control Bill Opposed.

A conference of Ministers of Agriculture was held at Hobart during April.

With reference to items dealing with the fruit industry, a committee of State fruit experts was set up as follows:—

Messrs. P. H. Thomas (Tasmania), Chairman; W. J. Allen (N.S.W.), J. M. Ward (Vic.), G. W. Wickens (W.A.), W. L. Summers, Secretary Minister of Agriculture (S.A.).

After deliberation, the committee reported (inter alia) as follows:—

**Grading of Fruit.**

It is recommended that the designations "Special," "Standard" and "Plain," as applied to fruit exported overseas be not altered.

That the Commonwealth "Plain" grade be amended to the following:—

Apples and Pears described as "Plain" shall consist of Apples and Pears of one variety and one size, free from broken skins, and not seriously blemished or injured by any disease; but fruit slightly blemished by rubbing, black spot fungus, or caterpillars, may be exported, provided that—

The total area covered by such blemishes on any Apple or Pear does not exceed the area contained in a circle having a diameter of ½ an inch.

Russeting of the surface shall not be deemed to be a blemish if the skin is unbroken. The diameter of Apples shall not in any case be less than 2 inches.

It is recommended that State standards for interstate trade be uniform with the Federal export standards with the proposed amendment.

**Lowering of Export Grades.**

That this Committee considers it advisable, before any alteration of export grade of agricultural products are adopted, the State Governments should be consulted.

It is a recommendation from this Committee that the various States adopt the same standard for dried fruits as are enforced by the Federal Government.

**Branding on Fruit Cases.**

This Committee recommends that as each State has legislation prescribing the sizes of cases used in the marketing of fruit, it is **unnecessary to additionally impose the branding of the "Guarantee of Contents" on the case.**

**Cool Storage and Carriage of Fruit.**

In view of the various efforts made and contemplated in connection with research work in cool storage and overseas carriage of fruit, this Committee affirms the desirability of coordination of effort, and would recommend financial assistance be not promised to any such effort until action was taken to ensure such coordination.

**Control of Marketing of Fruit.**

This Committee appreciates the work carried out in New South Wales and South Australia in respect to **dry and immature citrus fruits,** and recommends that it be continued by the different States, feeling that at present sufficient information is not available to make any recommendation for practical application.

The Committee further requests that New South Wales and South Australia should furnish the other State Departments with the information obtained by them in respect to this matter.

**In view of the absence of any desire on the part of the fruitgrowers generally for legislation of the nature of the proposed Fresh Fruit Export Control Bill, this Committee recommends the Conference to oppose the proposed Bill at the present juncture.**

**Importation of Citrus Fruits.**

This Committee is of the opinion the Commonwealth proclamation at present in force affords reasonable protection against the introduction of citrus canker, and therefore cannot recommend total prohibition.

**Prune Industry.**

In view of the heavy planting of Prunes, which has taken place in the last few years, and the possibility of over production in the near future, the Committee recommends that steps be taken by each of the States to obtain full particulars as to area, estimated production and consumption within Australia. These particulars to be submitted to the Commonwealth Government as soon as available, so that an investigation may be made into the best way of dealing with the surplus production, which we feel certain will obtain within the next three years, even if no further planting takes place.

In this connection it is of interest to note that in the New South Wales' soldier settlement areas, under the control of the Lands Department, it is estimated that the area at present planted will produce in 1928, 688 tons of dried Prunes, and the area mentioned is not half of New South Wales' total.

**Importation of Banana Plants and Fruit.**

**This Committee recommends the total prohibition of the importation of Banana plants and fruit from any country where the Sigatoke disease is known to exist.**

**Horticultural Crop Breeding Institute.**

In accordance with the decision of the 1924 Conference, a scheme was duly formulated by officers of the New South Wales Department of Agriculture. This was referred to the other States for consideration.

In view of the objections raised by the other States to the scheme in question, it is considered that the best plan would be for each State to ini-

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tiate work of this character to meet its own requirements, the results obtained to be exchanged so that the States may benefit of the knowledge acquired by each other in carrying out such work.

**Duty on Case Timber in Shooks.**

That the Committee appreciates the relief afforded to exporters of fruit by the action of the Commonwealth Government granting a rebate of the duty on case timber used for export purposes, and at the same time desires to stress the fact that the duty on pine timber presses heavily on the growers of fresh and dried fruit, and strongly urges that any request for increased duty on timber should in no circumstances apply to case timber in shooks.

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## TASMANIA.

Hon. J. W. Evans, C.M.G., M.H.A., accompanied by Captain Parry, of the s.s. "Riverina," visited during April the Huon deep water ports at Shipwright's Point and Cygnet to enquire into the requests for additions and extensions.

# South Australia.

### Fruitgrowers' Half-Yearly Conference.

THE fifteenth half-yearly conference of the S.A. Fruitgrowers' and Market Gardeners' Association was held at Adelaide early in April. The President (Mr. Randall) occupied the chair.

In opening the Conference, the Hon. F. W. Coneybeer, M.P., congratulated the organisation upon its development and the fact that it was divided into separate sections for growers of certain lines of fruit, with reasonable autonomy, to each to look after their particular interests. Growers had a great future in export avenues, which would be promoted by system and organisation. He had been impressed with the wonderful possibilities of the River Murray settlements, but it was the duty of the State and Federal Governments to find markets for that produce.

On the motion of Mr. C. W. Giles (an ex-President), seconded by Mr. C. H. Ragless (Vice-President) a vote of thanks to Mr. Coneybeer was carried.

**The President's Report.**

The President's report and the financial statement, presented by the Secretary (Mr. E. Naughton) were adopted. They showed a creditable record.

The President stated that there had been little over supply in fruit and vegetables, and in many lines of fruit, crops had been decidedly light. The Association, therefore, had not been forced to face the difficulties which had arisen in seasons when the crops were phenomenally heavy. The only exception this year was in the case of stone fruits on the plains, and in order to stabilise the position the Fruit Pool Society was formed, and Messrs. Donaldson, Fisher, Hunter, and Edwards were appointed a committee to take any necessary action. **The Government was approached with a view to securing the necessary financial assistance. On that being forthcoming Apricots, Plums, Raspberries, Gooseberries, and Tomatoes were handled in considerable quantities with benefit resulting to the growers.** The association had endeavoured to co-operate with other similar organisations in the Commonwealth with a view to the preventing of actions by the Federal authorities, which would have a prejudicial effect on the industry, and their activities in this direction were beginning to bear fruit. At the last annual meeting a resolution was carried, at the instigation of Mr. J. Donaldson, affirming the principal of an **orchard registration fee,** the objective being to raise a fund to be available for putting the industry on a more secure footing. A committee was appointed to go into the details and bring up concrete proposals, but on account of pressure of other business it had not yet been able to finalise its report, which would be available in the near future. Consequent upon the inability of the growers in Western Australia to provide the necessary quota of fruit to make up their requirements, the South Australian Plum Committee was reluctantly compelled to **abandon the shipment of 5,000 trays of Plums** which it was hoped would have helped to relieve the local market, in addition to testing the suitability of varieties for export. It was hoped that circumstances would be more favourable next season.

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The following motions were adopted:—

**Duty on Softwood Cases and Woodwool.**

"That this Conference protests against the proposed increase of duty on softwood cases and imported woodwool."

**Pre-cooling Opposed.**

"That, considering the excessive charges in landing Apples on the overseas markets, and that pre-cooling is not practised in the other States or by any other firm in South Australia other than the Government Produce Department, that department be asked to accept shipments at

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steamers' side as do other firms, and that consignments thus received be allowed the cost of pre-cooling and its consequent extra handling off the Government charge."—(Moved by Mr. H. N. Wicks, and seconded by Mr. W. Miller, both of Balhannah.) Carried.

**High Sugar Costs.**

"That our delegates to the Australian Fruitgrowers' Conference support any motion in respect to lowering the cost of sugar to processors of fruit."—(Moved by Mr. W. Giles.)

**Co-ordination.**

Mr. J. Donaldson read a paper on "The Co-ordination of Fruitgrowers," and received a cordial vote of thanks.

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The General Manager of the Government Produce Department (Mr. G. A. W. Pope) received cable advices early in April from the Trade Commissioner in London (Mr. R. M. K. Lewis) to the effect that early arrivals of Australian fruit were realising satisfactory prices—Cleos., Jons., and Dunn's being 18/- to 22/- per case.

South Australian shipments commenced with the sailing of the R.M.S. "Ormonde" on March 7. Of the expected total shipments of 30,000 cases, about 14,000 will be sent through the Government Produce Department. Last year South Australia exported about a quarter of a million bushels.

## SOUTH AUSTRALIAN PRODUCERS.

### Agricultural Bureau's Conference at Clare.

ON March 5th, representatives of the Clare, Saddleworth, Riverton, Tarlee, Williamstown, Williamstown Women, Lyndoch, Light's Pass, Saddleworth Women, Two Wells, and Black Springs Branches of the Agricultural Bureau met at Clare on the occasion of the Annual Conference of Mid-Northern Branches.

Mr. J. W. Hamlyn, chairman of the Clare Branch, presided, and the platform was occupied by Messrs. W. S. Kelly, H. Wicks, F. Coleman, A. B. Feuerheerdt (members of the Advisory Board of Agriculture), W. J. Spafford (Chief Agricultural Instructor), P. H. Suter (Government Dairy Expert), D. F. Laurie (Government Poultry Expert), J. B. Harris (Orchard Instructor for the Northern District), and H. J. Finnis (Secretary of the Advisory Board of Agriculture), states the South Australian Journal of Agriculture.

**Preserving Fruit and Vegetables.**

Mrs. E. Catford of the Riverton Branch contributed a paper in which she described methods of preserving fruit and vegetables. One important point, she said, was to select sound, ripe fruit. It should be packed in dry glass bottles with screw tops, and filled with syrup made by boiling 3 cups of water and 2 cups of sugar together for 20 minutes. This should be allowed to stand until quite cold, and then poured into the bottles of fruit. A cloth should then be placed in a preserving pan, the bottles placed on this, and water poured into the pan until the bottles were three parts covered. The water should then be brought to a boil, and the boiling continued until the fruit was quite soft. The lids should be placed upside down on the bottles to keep the heat in. When the fruit was cooked, the bottles should be taken out, the rubber band put on, and the tops screwed down with a suitable wrench. Care should be taken to ensure that there were no air bubbles left in the bottles, and that they did not leak.

Fruit and vegetables could also be preserved in cold water without the use of sugar or heating. The method was as follows:—Place the bottles of fruit in any large vessel that would hold 4in. or 5in. of water above the top of the bottles, let the water tap run into each bottle with some force to pack the fruit and wash out any impurities, then allow the bottle to stand for about five minutes until the air bubbles have ceased to rise, seal the bottles under the water, wipe dry, and stand upside down. The most important factor was to get the air out

of the bottle, and keep it out. During the discussion which followed, Mr. W. H. Lewcock (Clare), suggested dipping the bottles into a small pan of wax to make doubly sure that they were airtight.

The afternoon session was commenced by an address by Mr. H. W. Moss (Clare Branch), on "The Value of Fertilisers," which was followed by Free Parliament, during the course of which a number of questions were asked and answered by the experts.

**Autumn Spray for Black Spot.**

Mr. R. Knappstein asked if spraying in the autumn would help to control fusicladium or black spot of Apples and Pears, and, if so, what class of spray should be used. Mr. Geo. Quinn (Horticultural Instructor) replied that that disease usually broke into renewed activity in the autumn if rain fell before the leaves dropped. It then chiefly attacked the leaves, and gave rise to countless spores. Whether those spores rested about the tree or in the soil was a matter of dispute, but they undoubtedly increased the chances of a strong start being made by the fungus during the next season. At the Blackwood Experimental Orchard they were only troubled with the disease during recent years, and he intended spraying the Apple and Pear trees just as the leaves were falling to test the matter. They had sprayed the stone fruits with Burgundy mixture in the autumn season for a number of years past, and the shothole fungi were lessened much more than when spring spraying was alone given. He had found that autumn spraying would go a long way to repress curl leaf on the Peach trees when they burst into leaf in the following spring.

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**Powder Dusting.**

In reply to the question, "Is there any other and more effective method of controlling orchard pests and diseases than liquid spraying?" Mr. Geo. Quinn said that powder had been tried extensively by growers and experiment stations in the United States. Special "powder guns" operated by motor power had been devised and used. It should not be forgotten that the reagents used, such as arsenate of lead, calcium arsenate, and lime sulphur were much cheaper in America than here, and the waste of material was not such a serious matter with them. Later publications issued by the experimental stations did not give any particular advantage to the powder dusting over the liquid sprays, in fact, they seemed to lean towards the latter.

**Resolutions.**

Resolutions were carried to the effect that (1) "The Advisory Board of Agriculture be asked to make the necessary arrangements for the holding of a rural household science course in Adelaide during the coming year." (2) "That the Federal Government should increase the duty on imported dates." (3) "That the Government be asked to compel all landholders to destroy foxes, and that the destruction of such be under the supervision of the Minister of Crown Lands, that a simultaneous destruction be enforced during February, March, and April, and that the Government be asked to deal with Crown lands, water reserves, forest reserves, &c." (4) "That the Federal Government should prohibit the introduction of cornsacks below standard." (5) "That the Department should conduct a tractor trial on similar lines to that carried out on the Turretfield farm a few years ago." (6) "That the Advisory Board be asked to institute investigations with a view to determining, if possible, the cause and cure of buck currants."

## ORCHARD NOTES FOR SOUTHERN DISTRICTS FOR MAY, 1924.

**(by C. H. Beaumont, Orchard Instructor).**

THIS month will be one of preparation for winter work; probably the first thing to be attended to will be planting of young trees. It will of course, depend on the weather, but as soon as the ground will break up nicely, the nurseryman can lift the trees and planting may proceed. Have the land well prepared beforehand, so that all that is necessary is to clean out the holes and get the trees in, (writes Mr. C. H. Beaumont in the South Australian "Journal of Agriculture"). Do not plant in land unless it has been sweetened by being fallowed for at least one season.

Do not waste time and trees by planting in the scrub. Do not plant deeply; the crown of the tree should not be more than 4 in. deep, and the roots should slope downwards to about 7 in. or 8 in. Fasten the young tree to a stake to help it to get a firm hold. Prune as soon as possible after planting.

Give young citrus trees some water if rain be delayed.

See that ploughs and implements for working the land are in good order and ready for work; harness and chains also need attention.

Get drying trays and picking bags and cases cleaned out and housed away. Spray pumps and fittings need to be thoroughly cleaned before being put away; this applies especially to hoses and nozzles.

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Pruning may be commenced; do the stone fruits first, then the Grapes, and finish with the Apples and Pears. Make sure that secateurs and saws are sharp and clean. Prune bearing trees lightly as a general rule; young trees need to be pruned according to the growth, to make a stiff frame.

Plough to the trees as soon as you conveniently can, and leave in the rough, taking care to make ample getaway for flood waters.

Remember that fruit in cool store requires attention and repacking at intervals.

Citrus trees will need watching for "brown rot;" keep the lower limbs well off the ground, and do not allow water to remain about the trees. Straw of any kind serves a good purpose if spread under the tree, by preventing splashing.

### SHIPMENT OF GRAPES.

**10,000 Cases of Ohanez from Victoria.**

A shipment of 10,000 cases of Grapes is going forward by the s.s. "Orama" on May 4th to Messrs. Swann & Co., London, through Messrs. H. M. Wade & Co., 471 Flinders-lane, Melbourne. The variety is Ohanez, and the fruit has come largely from the Merbein district, though other places, such as Swan Hill and other districts are sending consignments. The bulk of the fruit is now in the Government Cold Store, Victoria Dock, Melbourne. The three-quarter bushel case is being used with the slats nailed closely together. The Grapes are packed in cork dust, and the cases are lined with paper.

The fruit is in excellent condition, and every hope is held that it will arrive safely in London.

The wish is sincerely expressed that this substantial shipment of Grapes will carry successfully, and realise satisfactory prices, in order to lay the foundations of what should be a highly satisfactory export business.

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## Victoria

### Useful Cultural Hints.

### Orchard, Vineyard and Farm Reminders.

### Flower and Vegetable Garden.

**Farm.**—Dig main crop Potatoes. Push on with ploughing and sowing of cereal crops, including Peas and Beans. Green fodder may still be sown. Land for Maize, Potatoes and other root crops should be prepared and manured. Flax may be sown. Transplant Chou Moellier and Giant Drumhead Cabbage plants in rows 3 feet apart. Complete sowing permanent pastures with grasses and Clovers (states the "Journal of Agriculture").

**Orchard.**—Plough, manure; apply lime to orchard lands at the rate of 5 or 10 cwt. per acre, where soil is sour. Spray trees infested with scale insects, Woolly Aphis, and Bryobia Mite with red oil or crude petroleum. Clean all rough bark from trees. Commence pruning early varieties at end of month. Pick up and boil all fallen fruit.

**Flower Garden.**—Digging, manuring, and pruning; trench and drain where necessary. Dress the surface with lime. Continue to sow hardy annuals. Bury all leaves, soft-wood cuttings and weeds. Continue to plant spring-blooming perennials and other plants. Plant cuttings of Carnations and Roses.

**Vegetable Garden.**—Cut down and clean out Asparagus beds. Apply manure and lime dressings. Cultivate deeply. Plant out seedlings and early Potatoes; sow Peas, Broad Beans, Carrots and Parsnips.

**Vineyard.**—Subsoil land for new plantations if not already done. This work should be carried out as long before planting as practicable. Vine-growers are warned against the too common practice of feeding off foliage after vintage. Any small advantage in the form of stock feed is only gained at the cost of a reduction in the following season's crop, owing to interference with accumulation of reserves, which continues so long as the leaves remain green. Sheep, or other animals should not be allowed into the vineyard until the leaves have changed color. Early and deep ploughing is strongly recommended. Manures should be applied as early as possible. Peas, etc., for green manuring, should be sown without delay, in order to take advantage of early rains.

### VICTORIAN FRUITGROWERS CENTRAL ASSOCIATION.

The monthly executive meeting of the above Association was held on 2nd April.

There were present Mr. J. W. Bailey (President), also Messrs. Tully, Hatfield, Grant, Thomas, Mock (Executive), and Wragg (Treasurer). Apology received from Mr. Lang.

Mr. A. A. Board of Pakenham East, was elected an individual member.

**Australian Conference.**—Letter received from Mr. R. E. Boardman stating that N.S.W. had withdrawn from affiliation and that delegates from Tasmania could not attend in May. Resolved on the motion of Messrs. Tully and Hatfield that the question of holding an Australian Conference be referred to the Annual Convention.

**Bitumul Paper Mulch.**—The Secretary reported having received from London sample rolls of this material with a request that experiments be carried out with same and report forwarded on the results. Resolved that this be done in the summer.

**Fruit for Empire Exhibition.**—Letter received from the Secretary to the Commission stating that the fruit so far to hand was not up to standard, and suggesting that it be left to the Commission to arrange with the Department of Agriculture for one of their officers to collect and pack the fruit required. On the motion of Messrs. Hatfield and Thomas this was agreed to.

**Rules and Constitution.**—Notice of motion is hereby given from the Executive that at the Annual Convention the Rules and Constitution of the Association be revised and amended.

The **Annual Convention** is to be held at Echuca from May 26th. to 29th. inclusive. In addition to the business sessions, trips have been arranged to the Torrumbarry Weir and Bamawm Irrigation district. Other social functions have also been arranged and an interesting and enjoyable time is assured.

### THE KYABRAM CANNERY.

**Extensions are Projected.**

A deputation, consisting of the directors of the Kyabram Co-op. Fruit Preserving Co. recently waited on the State Treasurer (Sir. Alex. Peacock) requesting further financial assistance to enable them to instal a can-making plant at the factory, also to carry out certain necessary extensions, and effect various improvements to the plant and machinery. Among those present were the Premier (Mr. Allan), the Chairman of the State Rivers and Water Supply Commission (Mr. Cattanach), and Mr. Abbott, M.L.C.

Mr. Allan, in introducing the deputation, pointed out that the canning industry was in a sound position, due largely to the improved methods of packing, thus establishing a good reputation overseas. He considered the industry was entitled to sympathetic consideration, in view of the ever-increasing demand that had been created.

The deputation pointed out that by manufacturing its own cans, the company could save £2,500 on

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E.S. & A. Bank Chambers,
Perth

NEW ZEALAND:
J. A. REDPATH & SONS Ltd.
181 Cashel Street, Christchurch
17 Johnston Street, Wellington
Hellaby Buildings, Queen Street, Auckland
And Dunedin

3,000,000 cans. The enlargement of the plant was necessary owing to the increased acreage coming into bearing. Over 300 acres of soldier settlers' trees would be in bearing in the district in the next two years.

Sir Alexander Peacock stated that the matter would receive his sympathetic consideration, and that he would give the cannery every possible assistance. He intended placing the request before the Cabinet.

### SHEPPARTON CANNERY.

**Increasing the Capacity.**

In response to a deputation from soldier settlers the Treasurer (Sir Alexander Peacock) said he was in sympathy with the request for an advance to enable the Shepparton cannery to be extended.

It was pointed out that the pack last year was 4,500,000 cans, and that this year it would be about 6,000,000 cans. The amount distributed in wages last year was £30,000.

### SHEPPARTON IRRIGATORS.

At the annual meeting of the Shepparton Irrigators' Association, held recently, Mr. E. J. Rule presided.

It was stated that a movement was on foot to begin a **co-operative cannery in Ardmona.** The need for **scientific research** work to combat pests was stressed.

The report showed a membership of 197.

The election of officers resulted:—President, Mr. E. J. Rule; Vice-Presidents, Messrs. A. H. Carver and E. P. Hill; Treasurer, Mr. C. J. Nash; Secretary, Mr. J. A. Rushton; Committee, Messrs. A. Nowell, J. McDonald, N. Hanlon, W. T. Roache, and C. Wright; Auditor, Mr. A. A. Spivey.

The membership fees were fixed as follows:—Growers with five acres of trees, 5/-; between 5 and 10 acres, 10/-; between 10 and 15 acres, 15/-; more than 15 acres, £1; soldiers on non-productive blocks, 2/6.

### Fruit Canning Industry.

The fruit canning industry has shown great activity in all the States. The pack proved to be very substantial, and quantities have been sold to New Zealand and the United Kingdom, with sufficient retained in the Commonwealth to meet requirements.

The pack of Pears, owing to a variety of causes, was shorter than usual.

Prices generally are in the region of 1/- per doz. higher than last year, there being no Government bounty.

### Fire Blight in New Zealand.

The Secretary of the Wanganui Branch of N.Z. Nurserymen's Association (Mr. W. T. Benefield) states that an outbreak of Fire Blight has occurred in Wanganui, which will seriously affect orchardists who largely stock Apples.

## The 1925 Citrus Crop.

**Problems of Distribution.**

**Development of Export Imperative.**

**Thoughtful Comments by Mr. Stanley Brentnall, of Bamawm, Vic.**

Problems confronting citrus growers in Australia were frankly dealt with in a thoughtful article contributed to the Melbourne "Argus" by Mr. Stanley Brentnall, of Bamawm, Vic., who is Chairman of Directors of the Victorian Central Citrus Association Pty. Ltd.

After outlining the activities of the V.C.C.A during the past three years, Mr. Brentnall referred appreciatively to the "finest example of independence and self-help yet devised for the disposal of a primary product, viz., the California (Citrus) Fruitgrowers' Exchange," at the same time urging all Victorian growers to co-operate for the common good.

Mr. Brentnall then gave the following interesting figures: the capacity of the Melbourne market was 10,000 cases per week: thus in the 30 weeks from June to December, a total of 300,000 bushels was all that could be absorbed: these figures could be reduced by 2,000 to 5,000 per week during a wet or cold spell: the 1925 output of Victorian citrus was 315,000 cases. Last season 46,000 cases of South Australian Oranges came on the Melbourne market, and the quantity expected from New South Wales was 20,000 cases. Western Australia, which could not consume more than 25 per cent. of its output, also sought a market in Melbourne.

The obvious solution lay in the export trade, and the obligation rested on district Associations to send forward their quotas. Problems of sea carriage and marketing could not be solved by a miscellaneous collection of single instances—continuity was the first essential for successful experiment

"The first essential of co-operation is defensive," continued Mr. Brentnall. "Once its defences are perfected, it can then devote all its energies to becoming progressive. Never, if its aims are properly directed, should co-operation become offensive. Growers should help themselves, and by so doing help their districts, and through them the executive officers of their central association, which, after all, is only the growers themselves in a corporate and co-operative form."

**CITRUS GROWERS**

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CITRICULTURIST,
C/o "Fruit World"

## Reminders for May.

**The Orchard.**

**(By E. E. Pescott, F.L.S., Pomologist, Department of Agriculture, Vic.)**

As soon as the fruit is off the trees, the land should be well ploughed and left in a rough condition until the spring ploughing. If not already done, and the orchard conditions demand it, there is still time to put in a leguminous crop for green manuring purposes. But this should be done as early as possible, so as to give the crop a chance to make some good early growth. Soils deficient in lime or in organic matter are always benefited by a crop of green manures. Where stable manure is unprocurable, the green manure crop is the only means of adding organic matter to the soil (writes Mr. E. E. Pescott, in the "Journal of Agriculture").

**Pests and Diseases.**

All second-hand and old cases should be thoroughly overhauled. It is preferable to do this work now instead of leaving it till spring, when the rush of other duties will certainly prevent it being carried out. The cases, if not bad enough to be destroyed by fire, should be dipped for some time in boiling water. And this is not only for the killing of the codlin larvae, but also to destroy larvae or eggs of any scale or aphis, and also any spores of fungus diseases that may have found lodgment therein.

As soon as the trees have shed their foliage, they may be sprayed with lime sulphur spray for woolly aphis, peach aphis, and the bryobia mite. And this should be done before pruning, so that in handling and carrying the prunings the pests will not be spread about the orchard to infect the clean portions.

### INTERSTATE FRUIT TRAFFIC.

The following numbers of packages of fruit and vegetables passed through Wallangarra during March:—From Queensland to Victoria, 42,075 cases of Bananas, 6,323 cases of Pineapples, 56 cases of Oranges, and 32 cases of miscellaneous fruits; from Queensland to New South Wales, chiefly to the Sydney markets, 25,534 cases of Bananas, 7,704 cases of Pineapples, 25 cases of Oranges, 18 cases of Tomatoes, 576 cases of miscellaneous fruits, and 73 packages of vegetables. From New South Wales and Victoria to Queensland, principally Brisbane, 45,123 cases of fruit, 12,694 bags of potatoes, 349 packages of vegetables, 3 packages of plants, and 26 packages of seeds. The fruit to Queensland consisted chiefly of Apples and Pears.



# FERTILISERS——

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## This is Where You Smile.

### BATTLERS AND SIDELINES.

#### The Stunted Sunflower Stunt.

There's an old saying that "time is money" and most of my friends who are battling on dried fruit blocks seem to have their issue of time, but as for cash! The least we say about it the better, it's a painful topic. I did hear of a chap once who got "time" for having some money, but it seems an inquisitive policeman found out it didn't belong to him, and that's how it happened.

But that's a sordid story of city battling—nothing like that happens with the true dinky-di rural battler, oh, no! They're fellows with brains and foresight, insight, long sighted and second sighted—I'm sure my cobber, Onkus, I call him, is a clair-voyant, the way he sees a way out of a difficulty. Whenever I see him squat on a log, pull his hat over his eyes, and pull out "the makings," I say to myself, "Onkus is goin' into a trance, leave him alone and when he comes out his trouble will be half solved."

His particular sideline is fowls, and he makes good money out of the fruits of their labors—ovas he calls them, facetious like, "cackle-berries."

But he was in trouble. He read somewheres that sunflower seeds were good for chooks. But the only ones he could get must have been the "Jack and the Beanstalk" brand of sunflowers 'cause they grew up in the fowl run so high the chooks couldn't hardly reach them. They'd fly up and make a wild grab at a mouthful of seeds and fall back all of a heap. One day soon after the seeds ripened, Onkus found one of his best Red Orpingtons with a wing broke.

And then one windy day when the flowers seemed to be dodging the hungry chooks all day long, he came out and found them lying all over the yard with the wind knocked out of them—gasping for breath and making funny noises. But that wasn't all, I mean, the worst! I s'pose you know his trade slogan? "My eggs are guaranteed to fit any standard egg-cup." Well, the knocking about those chooks got so affected the shape of their eggs that when they didn't lay 'em cracked they were oblong, or flat on one side, and some of 'em were so out o' shape that when you put 'em on the table they'd sit up and look at you like those cranky non-spillable pepper pots!

Then Onkus went into a trance! It simply had to be done. Result—when I called again there were the sunflowers, one foot high and their faces turned down so the fowls could get a feed without turning a feather. In fact they could almost sit down to their meals.

"Onk," I said, "you're the most brilliant battler I know. How did you do it?"

"Easy," said Onkus modestly, "I planted the seeds in some old "dip tins," the ones with the holes in, you know. As they grew, the roots poked out through the holes and I cut them off, and kept cutting 'em off till by the time the sunflowers were up a foot they turned up growing "up" and got "down" to business. Now the chooks can help themselves. Besides, standing on their toes is good exercise, and keeps their ankles slim."

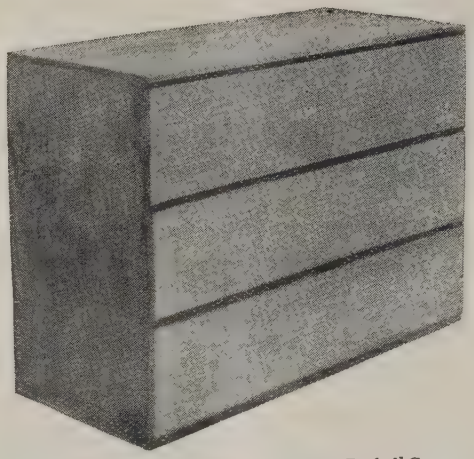
Onkus's idea is'nt patented so you're welcome to it!

---

"Well, darling, what did you see at church to-day?" a little three-year-old was asked after her first visit to a real church service. "Oh, muvver, I saw de funniest thing—dere was a man wif his nightie on dat said his prayers and den he didn't go to bed."

---

A man in a tweed suit and leggings walked into a poulterer's shop, and asked for a brace of pheasants. "Sorry, sir," said the shopman; "completely sold out of pheasants. I could let you have a nice veal-and-ham pie though, sir. "Don't be ridiculous," snapped the sportsman; "how the dickens could I go home and say I shot a veal-and-ham pie?"



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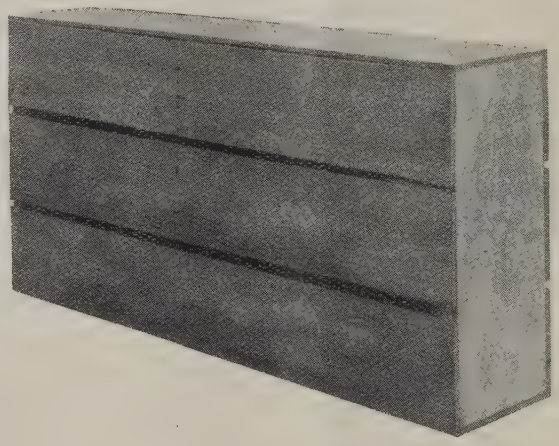
**UPRIGHT BUSHEL** with one piece top and three equal piece side

**DRIED FRUIT CASE** with one piece side and two equal pieces tops and bottoms

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## SOME ADVANTAGES IN FAVOR OF IMPORTED CASES

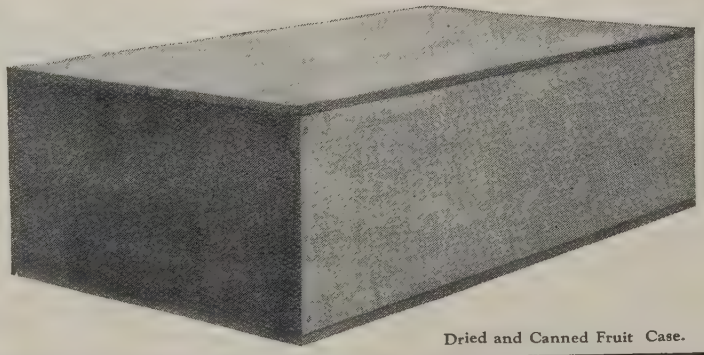
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# Manuring the Orchard and Vineyard.

## The Essentials are Nitrogen, Phosphoric Acid and Potash.

## The Importance of Proper Cultivation and the Use of Lime.

ALTHOUGH every attention be given to the working of the soil, it will be found insufficient to make available the large quantities of plant-food required for constant fruit production without the aid of fertilisers or manures.

No amount of manuring, on the other hand, will produce good crops if the land is not well tilled. Fertility may be said to depend on a happy combination of the two factors.

The greater quantity of plant-food is made up of carbon dioxide (obtained by the leaves from the air) and water which is drawn up by the roots from the soil; the balance (about 2 per cent. only) also comes from the soil. Development depends largely upon a wonderfully delicate and elaborate process by means of which the plant makes use of both.

Small though the proportion appears to be, the 2 per cent. is of the greatest importance, being made up of ten ingredients that are each quite essential to the growth of the plant. Most of these ingredients are present in almost all soils in superabundance, and as plants get enough of them for their requirements, the cultivator need not concern himself about them. **The exceptions are nitrogen, phosphoric acid, potash, and sometimes lime.** Even of these there is a plentiful supply in most soils, but not always in such a condition that plants can make use of it.

The object of the grower, therefore, should be to do all that he can to enable the supplies in the soil to become available, and where they are insufficient to enhance the supply by adding materials that contain them in some form readily available to the plants.

### Is Manuring Neglected?

The proper manuring of crops had been greatly neglected until within the last few years, and even now it is not unusual to hear doubts expressed as to the efficiency of chemical fertilisers. Occasionally someone even propounds the theory that their use tends to exhaust the soil. On the contrary, it is certain that any ordinary soil becomes impoverished by the constant removal of plant-food by the crop unless some means are adopted of maintaining fertility.

The materials required to keep the soil in fertile condition may be broadly classified thus:—

(1) Manures that contain the necessary plant-food (principally potash, phosphoric acid, and nitrogen); and

(2) vegetable matter and lime, which, besides containing plant-food, are of considerable value in improving the mechanical condition of the soil, and which thereby have a material effect in rendering available certain ingredients previously present in the soil, though not in a form in which plants could make use of them.

### The Simile of the Brick.

The rational use of manures (from the vegetable gardener's point of view) is aptly summed up in the following passages from a leaflet recently issued by the N.S.W. Department of Agriculture:—

"There is probably no quicker way of getting the general 'hang' of the complex question of manuring and an appreciation of the real relationship of artificial fertilisers to the productive power of the garden plot than to focus one's thoughts for a moment on the simile of the brick. It shows at once that the soil is something more than a sort of plant-food larder, and proves to the gardener that his duty to his soil is not discharged merely by discovering the plant-food ingredients it apparently lacks and by taking steps to replenish them.

"Let the reader picture, on one hand, an ordinary builder's brick, and on the other a box containing a poor, sandy soil. To grow plants on the former would manifestly be impossible. The poor, sandy soil on the contrary, while not an ideal growing medium, could certainly be utilised for plant production. Yet, if the two substances were subjected to chemical analysis, **the brick would be found to contain a greater quantity of plant-food than the soil.**

### Soil Texture and Fertility

"Here is illustrated very vividly one of the prime principles of fertility, for it brings home the fact, which many gardeners are prone to overlook, that if a soil is to be actively fertile it must not only contain the chemical elements of fertility, but it must have such a texture, and be in such a mechanical condition, as to make the plant-food ingredients available to the plants.

The problem of making and keeping a soil fertile is therefore not quite so simple as we might wish; and although the conception of the soil as a plant-food larder, in which the three main ingredients (phosphoric acid, nitrogen, and potash) must always be present, is quite sound so far as it goes, we only court disaster if we visualise the matter in no other way."

Many growers are under the impression that it is possible for the expert to take a matchboxful of their soil and characterise it as a good, bad, or indifferent growing medium for crops in general, or some particular crop, simply by determining the percentages of plant-food ingredients apparently present, and that solely on the strength of such a determination he could prescribe a fertiliser formula that would repair all the defects. For such a purpose, on the contrary, mere chemical analysis of the soil is of little use. It has been found that the only sure method of ascertaining the fertiliser requirements of a soil is by actual trial on the land itself.

Although a chemical analysis of a soil may state the total amount of plant-food present, it does not indicate the amount available to the growing crop. Other factors, such as location, mechanical condition of the soil, bacterial life, &c., also play their part in determining the suitability of soils for various crops.

Soil analysis is therefore carried out by the Department only under special circumstances, and then only on the recommendation of the agricultural instructor for the district.

### Appreciation.

Gosford, N.S.W.

The "Fruit World" is of great value to the fruitgrower, and deserves to be supported.—C.T.P.


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**D. J. LATHAM**

**157 Queen Street,**

Melbourne, Australia.

## pur Pruning of Pear Trees

### To Stimulate Their Cropping Habit.

"Rather startling results have been secured from a new method of pruning the Anjou Pear, by Rev. H. I. Bittner, of Nob Hill, Yakima Valley," states "Better Fruit" (U.S.A.). Having come into possession of twenty-two 10-year-old Anjou Pear trees which were not giving much of an account of themselves, and having failed to secure information which seemed to him likely to help him in their treatment, Mr. Bittner decided to try some methods of his own.

Taking three trees, he pruned them each in a different manner.

In the case of the first, he headed back all the main branches about 3 feet, the second was deprived of some of its scaffold limbs and given a general light pruning, while in the third tree he left all the scaffold limbs, but trimmed off 50 per cent. of the fruit-buds in the clusters. In applying the last-mentioned method he argued that the Anjou blooms too heavily, which interferes in some way with the setting of the fruit.

The tree which was headed back yielded four and a half boxes of Pears; the tree from which a number of scaffold limbs had been removed yielded seven and a half boxes, and the tree on which spur pruning had been practised yielded sixteen and a half boxes. This was in 1921. On the strength of these results, the following winter he pruned all his trees by the spur method, and obtained in 1922, 4 tons of Pears.

The foregoing is of interest in that the method of pruning described is similar to the spur pruning carried out on Winter Nelis Pears in New South Wales. This variety was found to be a very shy cropper, but experiments carried out some years ago at Bathurst Experiment Farm (states the N.S.W. Department of Agriculture) proved that by heavily

**thinning out the fruit spurs**

the trees could be induced to set a heavy crop of fruit. Heading back of the main leaders or thinning out of the main limbs was carried out according to the requirements of the framework of the tree, independent of the thinning of the spurs.

Good results from thinning of the spurs of the Winter Nelis have been obtained in many of the Pear districts of New South Wales.

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## CENSUS OF FRUIT PLANTINGS.

### Need for Accurate Returns.

### Prompt Action Necessary in all the States.

Mr. H. G. Such, General Manager of the Griffith Producers' Co-operative Co. Ltd., Griffith, N.S.W. sees trouble ahead unless accurate statistics regarding the fruit industry are prepared, and writes:—

An examination of the figures now made available by the N.S.W. Department of Agriculture indicates the necessity for a survey of the position by the whole of the States if a true conception of the plantings is to be arrived at.

Some time back it was agreed by all States that this census should be taken at the earliest possible date, but, with the exception of N.S.W., little or nothing has been done. It is a public duty that a complete census should be made in order that intending growers should have at least a sporting chance of success following their planting.

For example who, knowing the acreage of Prunes in N.S.W. yet to come into bearing would plant this class of fruit. Naturally, the increases shown below will not wholly be realised, as old age and disease would take their toll.

Increase in N.S.W. Fruit Plantings in 1924:—

| | | |
|---|---|---|
| Wine Grapes | 38 | per cent. |
| Table Grapes | 27½ | per cent. |
| Sultanas and Currants | 110 | per cent. |
| Figs | 22 | per cent. |
| Prunes | 340 | per cent. |
| Apples | 44 | per cent. |
| Pears | 48 | per cent. |
| Quinces | 24 | per cent. |
| Citrus | 41 | per cent. |
| Apricots | 48 | per cent. |
| Nectarines | 33⅓ | per cent. |
| Peaches | 27½ | per cent. |
| Total Increase | 57 | per cent. |

It is to be hoped that these necessary statistics will be compiled without any delay. "Stocktaking" is an essential feature in regard to any business enterprise.

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## Poultry Notes

### POULTRY BREEDING.

#### Improve Your Stock.

MANY of the troubles that beset the poultry breeder have been intensified by the class of stock being kept, and by its management. There is a keen desire on the part of many poultry-farmers to improve the quality of their stock; yet, when the time of the year comes round when steps might be taken to remedy the evils from which they suffer, the same old methods are pursued.

For instance, as departmental experts point out, a few pounds judiciously spent in the purchase of new stock during the next couple of months might make a much needed improvement.

The farmer who depends on cheap day-old chickens for this purpose is not likely to reach the desired end. Does the farmer ever pause to think what quality can be expected in chickens bought for 9d. and 1/- each? The reference here is, of course, the breeding stock.

Tens of thousands of such chickens are pedigree-marked, to be used as breeding stock, and many are sold as such, and as So-and-So's strain. It is pathetic to realise what the end will be.

It should be understood that pedigrees are worthless unless backed by quality in the bird or birds under observation.

#### Indiscriminating Breeders.

Many breeders who are distributing stud stock are lacking in knowledge of the breeds in respect of type and character. It is more simple to them to mark chickens in a mechanical way and supply pedigrees based on blood lines, without regard to the quality of the birds supplied, than to learn the standard for the breeds.

The time is, however, at hand when breeders must acquire the necessary knowledge, or the poultry industry will suffer a severe setback by the loss of type and character, as well as physique. Line breeding and pedigree-marking are all right and proper when carried out by skilled breeders working with good stock. The moral of it all is not to put confidence in pedigrees alone, but to seek to gain that knowledge of the breeds that will be a protection in making purchases.

#### Costly Complacency.

A particular failing among poultry-farmers is that they are too satisfied with their own stock, and too busy on their own farms to spare time to visit other farms to inspect stock for purposes of comparison. Such inspection should be directed to good flocks, where it is known that quality is a special feature. In this regard the poultry industry is coming to such a pass that unless there is an improvement it will become a very serious question whether some kind of registration of farms catering for stud business should not be enacted for the purpose of keeping some supervision over the class of stock being bred for sale to the public.

Only a small percentage of breeders of poultry (or of other animals for that matter) acquire the knowledge of genetics, together with the skill and judgment necessary for their application, that would constitute them first-class breeders. Many of the most successful commercial poultry-keepers do a good deal of outcrossing, but are particular where their purchases are made. Many others would be better off if they followed this line and purchased their requirements for breeding stock from skilled breeders.

## Bee-keeping Notes

#### Wintering.

WITH many owners of bees it is to be regretted that the problem of wintering the stock takes upon itself the character of a very genuine lottery." says Henry Geary, an English authority in his handbook, "The Beekeepers' Vade Mecum."

"In this game of chance," he says, "the bees are usually left entirely to their own devices, while their owner calmly speculates as to how many colonies will be alive in the spring.

"This should not be. There is little difficulty in preparing bees for winter, and so prepared, a competent apiarist will winter 95 per cent. of his colonies. The three necessary items for safe wintering are—first, strong colonies, preferably headed by young queens; secondly, an abundance of good food, say, 30 lbs.; thirdly, warm and weather-proof hives, and undisturbed quiet and rest.

All preparations to this end should have been completed in the early autumn. Feeding should have been carried through, weak colonies united, queens superseded where necessary. Then with the coming of the first frosts, the finishing touches may be given, and the apiary left in peace until the warmth of spring awakens it to new life.

Immediately the colonies have received their food allowance the quilts should be removed, and two split balls of napthaline placed on the floor board of each hive, near the back corners. The splitting of the balls enables them to lie under the bottom bars of the frames.

Following this, lay two sticks across the tops of the frames, at about 3 inches apart. These sticks should be about three-eighths of an inch in diameter, and should lie across the centre of the frames at right angles to the direction in which the frames run. The purpose of this is to provide passage-ways for the bees from comb to comb, when they move in search of food, and does away with the necessity of their moving under or round the ends of the frames, where the temperature is much cooler.

Often, too, there is a certain amount of brace-comb on the frame top bars. This also assists in providing passage ways, and it should not be scraped off until spring. Having placed the sticks in position, cover with the calico quilts, following this with several thicknesses of felt, a chaff cushion, or a tray of cork-dust. A tray for the latter may be made by tacking a piece of calico on the bottom of a super, and then pouring in about four inches of cork-dust. Pack the top coverings down as warmly as possible, and then make sure that the roof is water tight.

Leaking roofs are a fertile source of loss, as the trouble is frequently not discovered until the hive is opened in early spring. If any doubt exists a sheet of corrugated iron should be placed over the roof, and secured in position. Hive roofs should be secured against high winds. Finally, open the entrance to a width of about 6 inches, and if there is any fear of mice gaining admission, fix a wire across. The bees should then require no attention until the spring, but may be allowed to rest in absolute quiet.

### ITALIAN BEES.

#### Government Stocks Available in N.S.W.

Considerable attention is being given by the N.S.W. Department of Agriculture to the improvement of



*Special Note.*

*"Karswood" Poultry Spice is not a Spice in the generally accepted sense. It is a scientifically compounded and natural tonic, and is guaranteed non-injurious. What better proof, however, can be obtained that it is so than by the fact that over half a million poultry raisers are using it and are enthusiastic about its results*

# Moult completed and laying

## actually started after a fortnight of "Karswood"

After a long spell of summer-laying, it is only natural that fowls should ease up. The more eggs they have lain the bigger the strain has been. How to overcome this strain is the poultry raiser's chief difficulty, and, unless he has been introduced to and used Karswood Poultry Spice (which contains ground insects) it is one that increases as the winter months go by.

The above headlines are not made up. They constitute the definite and actual experience of Mr. H. M. Bradley, of 46 Charles Street, Forrestville, South Australia. His testimonial together with hundreds of others which have been received from all over Australia, can be seen at the Agent's office, 375 Kent Street, Sydney.

Now is the time to give "Karswood." By so doing you will invigorate and tone up your fowls and so pave the way for an easy moult and, more important still, for regular and consistent laying throughout the winter. 1lb. packet is sufficient for 20 hens for sixteen days. In other words makes 12 hens lay for a half-penny a day.

Following are a few of the many testimonials received:—

### Abundance of Eggs

"I got a couple of 2/- packets of Karswood Poultry Spice about a couple of months ago, and I found it did all you say in the advertisement in the Producers' Review. Our poultry had not been laying for months, and exactly three weeks after using the Spice we got abundance of eggs; the poultry improved in a wonderful manner.

We are now giving it to young chicks, and it is a splendid growing mixture and puts life and energy into them.

Please send by rail to Bruce Rock, one 7lb. tin of Karswood Poultry Spice, 14/-; also 3 packets of Pig Powders (Karswood), 4/-."

(Sgd.) E. H. TOMKINSON,
Kuminin, via Bruce Rock

### "It is doing good"

"I bought a half pound packet of Karswood about a week ago, as I was anxious to try it with my fowls as they had gone off laying for some time. I am glad to say that it is doing good, and they are now beginning to lay again. I will mention about it to my neighbours who have fowls, and I hope it will inspire them to give it a trial.

"With many thanks."

(Sgd.) F. O'LOUGHLIN,
324 Catherine Street, Liverpool, N.S.W.

### Make this Test

Go to your local Grocer, Storekeeper, or Produce Dealer. Get a 1/- packet of Karswood Poultry Spice, then give it to half a dozen of your birds in accordance with the directions on the packet. Do not expect immediate results, Karswood works naturally, not suddenly. It takes at least a fortnight or three weeks to produce results, but they are good and sure.

### Note the Economy

1/- packet supplies 20 hens for 16 days.
2/- packet supplies 20 hens for 32 days.
13/- (7lb. tin) supplies 140 hens for 32 days.

### Supplies

"Karswood" Poultry Spice is obtainable from all Stores and Poultry Food Suppliers at the following standardised prices:—

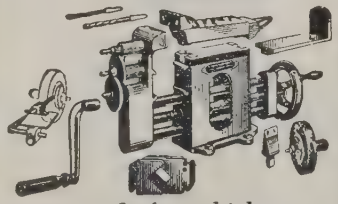
| | |
|---|---|
| ½lb. packet . . . . . | Price, 1/- |
| 1lb. packet . . . . . | Price. 2/- |
| 7lb. tin . . . . . | Price, 13/- |
| 14lb. tin . . . . . | Price, 25/- |
| 28lb. tin . . . . . | Price, 48/- |

*If your local dealer cannot supply you, write direct to Henry Berry Proprietary Limited, Collins Street, Melbourne, (adding postage) 6d. on ½ lb. packets and 9d. on 1 lb. packets to the above prices.*

strains of bees in the State, and for this purpose twelve leather-coloured Italian queens were imported from a reputable Italian breeder in September of last year. All queens landed safely, but two died shortly after arrival. The remainder have been distributed among notable breeders in various parts of the State, Wauchope Government Apiary, and Hawkesbury Agricultural College.


*What is it?*

*and what does it do?*



*—an outfit for which every farmer can find almost daily use.*

*Anvil, Grinding Wheel, Vyce, Pipe Vyce, Cutting Hardie, Drilling Jig and Drills, are all strongly made in one compact handy outfit.*

Price £5/15/- F.O.R.; Wgt. 76 lbs.

YOU SHOULD HAVE A

**Stewart**

**"HANDY WORKER"**

Victorian Distributors:

**McPHERSONS PTY. LTD.**

Collins Street, - - Melbourne

Proprietors:

**COOPER ENGINEERING Co. Ltd.**

129 Sussex Street, - - Sydney


The results obtained from those at the two Government apiaries have exceeded all expectations in quality. The stamina and storing qualities of the strain are excellent, and the progeny of the queens, which have already been used largely in re-queening throughout the apiaries, have given splendid results in honey production. A notable feature of the new stock is their tractability, which is very marked.

The conditions for breeding and honey production this summer have been very favourable, and the demand for progeny of imported stock indicates a desire on the part of apiarists to improve their stocks.

Full particulars may be obtained by anyone in New South Wales who would like a nucleus colony from these queens, upon application to the Under Secretary and Director of Agriculture, Sydney.

## Pig Breeding.

### Marketing Pigs.

The rise in the price of wheat is likely to have a wider effect than its mere influence on the returns of the wheat farmer. Dear wheat means dear bran and pollard. Every bag of wheat sent to England provides by-products which are largely bought up by the Danes and come back to England in the shape of butter and pork. During the war, owing to the difficulty experienced in obtaining fodder, the Danes were compelled to kill off their live stock, and the number of pigs particularly showed a heavy decrease at the end of the war. Since then the importation of fodders has again increased with a correspondingly heavy increase in the number of pigs (states the "Australasian"). The amount of bacon sold to Great Britain in 1923 was about 174,000,000 kilos, compared with 126,000,000 in 1913. Of butter the export sale was 112,000,000 kilos in 1923, and 91,000,000 in 1913. Stock of all kinds are heavily hand-fed in Denmark, the country being too poor to graze them profitably. If the price of wheat keeps up we will be in a much better position to compete with Denmark, and our position would be strengthened still more if a greater proportion of flour than of wheat were sent overseas. We understand the quality of butter demanded by the best trade in England; but little effort had been made to study the quality of pork, whether for the fresh meat trade or for bacon. Denmark, on the other hand, has studied English tastes with great care. For instance, they use only two breeds—the native Landrace sow and the Large White boar. If we wish to establish an export trade, and it is necessary to do so if we are to stabilise pig breeding, we must supply just what they require. The demand for the fat type of pig has disappeared in England, as it has done in Australia. The "Pig-breeders' Annual" states that the ideal bacon pig should be as follows:—Back long and level, with well-sprung ribs, fat about 1½ inches thick; sides level and moderately deep; hams broad, wide, and deep to hock, no depression at root of tail; belly thick with straight underline; shoulders light, aligned with forelegs below and with side laterally, free from wrinkles and coarseness; flank aligned with sides, thick, and handle firm; head, neck, and jowl as light as possible, with no rolls of coarse fat; flesh firm without excessive fat; skin thin, and free from coarseness and wrinkles; hair fine and silky. To produce a pig of this kind, which should be marketed when the dead weight will reach over 160lb., the English opinion seems to be that a Large White boar should be used on a Middle White, Large Black, or Berkshire sow.


**STONE FRUITS**
**CITRUS TREES**
**and QUALITY ROSES**

**A Good Start means Everything!**

*BEFORE PURCHASING* send for Lasscock's Catalogue and prices. These South Australian grown trees are unsurpassed for hardiness, healthiness, and vigor. They will jump from the start and bring profit to the grower. Our stocks are excellent and prices right. Special attention is given to packing.

**Lasscock's Nurseries,** Henley Beach Road, LOCKLEYS, STH. AUSTRALIA

## REGARDING LIVE STOCK.

### Reminders for May.

**Horses.**—Those stabled can be fed liberally. Those doing fast or heavy work should be clipped; if not wholly, then trace high. Those not rugged on coming into the stable at night, should be wiped down, and in half-an-hour's time rugged or covered with bags until the coat is dry. Old horses and weaned foals should be given crushed oats. Grass-fed working horses should be given hay or straw, if there is no old grass, to counteract the purging effects of the young growth. Attend to teeth and feet of horses to be turned out for the winter, states the Victorian "Journal of Agriculture."

**Pigs.**—Sows not already served should be put to the boar. Supply all pigs with plenty of bedding, and see that sties are warm and well ventilated. Supply sows liberally with grain. Castrate young boars as early as possible. Pigs should be highly profitable now, as pork is very dear. Rape barley (especially skinless), oats, etc., may be sown for grazing during winter. Crushed oats will be the most economical feed for pigs at present prices.

## A National Organisation.

### Rotarians Assist the Boy Scouts.

### Fruitgrowers Can Help.

Mr. Sydney Stott is the representative of orchardists in the Rotary Club of Melbourne. Only one of any profession or business is admitted to membership.

Rotary International is the organisation of which all Rotary Clubs are members. March 1, 1924, it consisted of 1,642 member clubs, with approximately 98,700 members in 26 countries.

Rotary is more than an organisation—it is a great social movement; it has already found congenial soil among the diverse peoples of 26 nations. Rotary International may be the means of a new social order; and, with the further extension of Rotary, a force of great potentiality for world peace and good-will.

Since 1912 the organisation has grown even more rapidly than during the first seven years. To-day there are almost seventeen hundred Rotary Clubs in the world. Although the greater number are in the United States, where the movement originated, and in the British Isles and Canada, there are now Rotary Clubs in Newfoundland, Porto Rico, Mexico, Cuba, Republic of Panama, Uruguay, Argentine Republic, China, Norway, Panama Canal Zone, British India, Spain, France, Denmark, N.Z., Australia, Hawaii, Philippine Islands, Peru, South Africa, Japan, Holland, Brazil, Belgium, Italy and the Burmuda Islands. Extreme care has always been exercised in surveying cities and towns applying for membership to make sure that such communities are ready for a Rotary Club, and are of a sufficient size from which to secure a group of representative men and still have the membership restricted to one man from each business or profession.

Rotary aims at interesting the public in deserving movements which will makeVictorian boys into good Victorian citizens.

After investigation, Melbourne Rotary selected the Boy Scouts' Association for the objects of its efforts, and determined to raise £10,000 for the central organisation, so that it could continue the good work which it is now doing. The Boy Scouts' Association badly needs the money.

Boy Scouts are non-sectarian and non-military, but they are not non-entities.

"Rotary Week for Boy Scouts" showed what boys are, and can do in handicrafts, in useful hobbies, and in physical training. Iforchardists desire to help this movement they should write to Mr. Stott, at 100 Russell St., Melbourne, who will supply bonds at 1/-, 5/-, 10/- and £1 each.


# CHEAP TREES

**CANNOT** *be purchased at the "BALHANNAH NURSERIES," but large quantities of Highest Quality Fruit Trees in all Leading Commercial Varieties can, and at the* **Cheapest Price** *consistent with their quality. Every tree in these nurseries receives continuous and individual attention by experienced men for nearly two years before despatch.*

Not Cheap but well worth their price. This quality is Planters' Protection.

*ENQUIRIES SOLICITED*

**BALHANNAH DECIDUOUS NURSERIES**

**BALHANNAH, S. Aus.**

**ESTABLISHED 1891**

# AUG. STIER

**FRUIT BROKER,**

**Fruchhof, HAMBURG**

Telegraphic Address: *FRUTERO, Hamburg.*

*Consignments Solicited*

*Agents for Victoria and South Australia:—*

**J. B. MILLS & CO., 9 Queen St., Melb.**

*Tasmanian Representatives:*

**SILBERT SHARP & DAVIES**

**Clyde Street, Hobart, Tasmania**

*Reliable Representatives wanted for the other States.*


## MY CREED.

I would be true, for there are those who trust me:
I would be pure, for there are those who care:
I would be strong, for there is much to suffer:
I would be brave, for there is much to dare.
I would be friend of all—the poor, the friendless:
I would be giving, and forget the gift:
I would be humble, for I know my weakness:
I would look up, and laugh, and love, and live.

"Great Thoughts."—Howard Arnold Walter.

## LEARN TO SMILE.

It's easy enough to be pleasant
When life flows by like a song;
But the man worth while is the man who will smile
When everything goes dead wrong.
For the test of the heart is trouble,
And it always comes with years;
And the smile that is worth the praises of earth
Is the smile that shines through tears.

# The Fruit Trade

*Market Reports and News Items.*

**REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS,**

**Advertising in this Journal.**

**NEW SOUTH WALES.**

**Sydney.**
Chilton, F., City Fruit Markets.
Greenberg, S. & M., Fruit Markets.
Louey Pang & Samuel Wong Ltd., Thomas St., Haymarket.
Rogers, F. H. G., Fruit Exchange.
Rule & Beavis, Fruit Exchange.

**VICTORIA.**

**Melbourne.**
Coastal Farmers' Co-op. Society, Western Market.
Colombie, H. G., 115 Hotham St., East Melbourne, see advt. xvi for list of representatives.
Davis, J., Western Market.
Lister, G., Western Market.
Millis, A., & Sons, Western Markets.
Mumford, J. G., 449 Flinders Lane.
Pang & Co. Ltd., H. L., Little Bourke Street.
Silbert, Sharp & Davies, Western Markets.
Stott & Son, T., Western Markets.
Tim Young & Co., Western Market.
Vear, F. W., 49 William Street.
Wade & Co., H. M., 471 Flinders Lane.
Woolf, G., Western Market.

**QUEENSLAND.**

**Brisbane.**
Barr, A. S., Fruit Exchange.
Collard & Mackay, Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Finlayson & Son, Fruit Exchange.
Geeves, H. V., Fruit Exchange.
Robsons Ltd., Fruit Exchange.
W. J. Whitten & Co., Fruit Exchange.

**TASMANIA.**

**Hobart.**
Jones & Co. Ltd., H., Fruit Exporters.
Peacock & Co., W. D., Fruit Exporters, and at London.
**Launceston.**
Bender & Co., 110 Elizabeth St.

**NEW ZEALAND.**

**Auckland.**
Radley & Co. Ltd., Fruit Auctioneers.
Turner & Growers Ltd., City Markets.
**Dunedin.**
Co-operative Fruitgrowers' of Otago Ltd.
Paterson, Thos., & Co., Vogel Street.

**ENGLAND.**

**London.**
Da Costa, Gerald, Floral Hall, Covent Garden.
Isaacs & Sons Ltd., M.
Jacobs, E., & Sons, Covent Garden
Joel, R., & Sons, 16, 17, 20 Russell St., Covent Garden.
Margetson & Co. Ltd., Covent Garden.
Monro, Geo., Ltd., Covent Garden.
Pask, Cornish & Smart, Covent Garden.
Poupart, T. J., Covent Garden.
Ridley, Houlding & Co., Covent Garden.
Springer, Barney, 12 Russell St., Covent Garden.
Swann & Co., 3 Salter's Hall Court.
**Hull.**
Shaw, B. & J.
White & Son Ltd.
**Liverpool.**
Adam, James, Son & Co., 1 Temple Court.
MacGeorge & Jardine.
**Southampton—**
**Manchester.**
North of England Fruit Brokers Ltd., represented by N. V. Wade, 8 Bridge St., Sydney.
**Newcastle-on-Tyne.**
B. & J. Shaw.
**Bristol.**
Bristol Fruit Brokers Ltd.

**SCOTLAND.**

**Glasgow.**
Russell, Turnbull & Co.

**IRELAND.**

**Belfast & Dublin.**
Connolly, Shaw & Co. Ltd.

**WALES.**

**Cardiff.**
Connolly, Shaw & Co.

**GERMANY.**

**Hamburg.**
Algemeene Vruchten Import Maatschappy.
Astheimer, P. H., & Son., Fruchthof.
Lutten, J. H., & Co., Hamburg.
Stier, Aug., Fruchhof, Reps. J. B. Mills & Co., 9 Queen St., Melbourne.

**HOLLAND.**

**Amsterdam.**
Algemeene Vruchten Import Maatschappy, De Ruyterkade, 39/40, also Rotterdam.

## British and Australasian Market Reports.

### AUSTRALASIAN FRUIT IN ENGLAND AND THE CONTINENT.

**Cabled Reports.**

**London** (1/4/25).

The display of the first consignment of the new season's Australian Apples attracted numerous buyers to Covent Garden. For shipments from **Western Australia**, ex the steamer **"Mooltan"** keen competition existed, although the fruit showed signs of Bitter Pit. The bulk of the offerings consisted of Cleos., which realised from 17/- to 19/- a case. A few Cox's Pippins brought from 23/- to 30/-, Jons. 21/-, Ribston Pippins 16/6, and Dunn's Seedlings 18/6 to 20/- a case.

**Victorian** Apples were good. Cleos. were rather green, and Jons. were deficient in colour. The fruit was auctioned at Monument Buildings, and met with good competition. Jons. realised 14/6 to 17/6 a case, Cleos. 15/- to 19/-, Dunn's Seedlings 14/- to 17/-, Cox's Pippins, some of which showed Bitter Pit, 14/- to 20/-, Reinettes 16/- to 20/-, Ribston Pippins 15/- to 17/-, Munro's 14/- to 17/-, Wellingtons 15/6 to 16/-; Filbaskets 10/-. The sale of Pears was handicapped by heavy supplies of South African fruit, of which 85,000 packages, equal to about 30,000 half-cases of Australian Pears, arrived this week. South African Pears will be plentiful for at least another month. Victorian Pears were somewhat ripe. Clairgeau half-cases realised 6/6 to 6/9; Beurre Bosc cases 14/6, half-cases 9/- to 10/-; Beurre D'Anjou, trays 4/6 to 6/-; and Marie Louise, half-cases, 7/6. Williams Bon Chretien Pears were sold privately at 11/- a half-case, while **Western Australian** Grapes by the "Mooltan" and "Largs Bay" were disposed of mostly at 14/- to 15/6 a case. Black Prince Grapes realised 17/6, and Colmar 20/- a case.

**London** (9/4/25).

**New Zealand** Apples by the steamer "Rotorua" arrived in excellent condition, Dunns, Jonathans, Worcesters and Ribstons realising 20/- to 21/- a case, Premiers and King Davids 18/- to 20/-, London Pippins 16/- to 18/-, and Cox's Pippins 30/- a case.

**London** (17/4/25).

The quality of the Tasmanian Apples generally was only moderate, but the demand was good. Apples ex the steamer "Ormonde" were sold as follows:—**Tasmanian** Cox's Pippins, 14/6 to 24/- a case; New Yorks, 15/-; Duke of Clarence, 14/- to 15/-; Worcesters, 15/- to 15/6; Cleos., 13/- to 17/6; Scarlet Nonpareil, 15/- to 15/6; Alex., 11/6 to 15/-; Alf., 11/- to 15/6; and Ribstons, 12/- to 16/6. King Davids were wasty, and realised 10/6. **Western Australian** Jonathans brought 15/- to 17/6 a case; Cleopatras, 17/- to 18/-; and Dunn's Seedlings, 17/6 to 18/-. Sound Grapes sold at about 17/-, a large number being wasty. **South Australian** Cleos., 17/- to 18/-.

The condition of Apples shipped by the **"Esperance Bay,"** which have reached London is generally satisfactory. The fruit is meeting with keen competition. **West Australian** Cleopatras brought 17/- to 20/- a case, Jonathans 16/- to 19/-, Dunn's Seedlings 17/- to 19/-, Cox's Pippins to 25/-, and Munro's 18/- to 19/6 a case. **South Australian** Jonathans, Cleopatras, and Dunn's Seedlings realised 16/- to 19/-. **Tasmanian** Cox's Pippins brought 17/- to 21/6, Jonathans 15/-, Cleos. to 17/9, Pride's 14/3 to 15/9, Worcesters 15/- to 16/-; Ribstons 13/- to 15/-, New Yorks 14/6, Munros and Adam's 14/-, and others 13/- a case. **Victorian** Munro's 14/3 to 16/6, Cox's 21/6 to 23/6, Northern Spy 15/-. The Pears were in variable condition. **West Australian**, trays of sound Packhams realised 3/6 to 6/-, Comice 3/- to 3/3, Winter Nelis 5/-, Josephines 6/6 to 8/- a tray. In cases, Keiffers brought 16/-. **Tasmanian**, in trays, sold:—Clairgeau 5/-, Beurre Bosc 6/- to 7/9, Vicars 4/- to 5/-, while cases brought —Bosc 20/-, and Clairgeau 14/6. **West Australian** Grapes were somewhat wasty, but met with a good demand. Sound realised 16/- to 21/- a case, and wasty 4/- to 10/- a case.

**Victorian** Apples by the steamer "Otira" have been sold, Munro's realising 15/- to 16/- a case, Jonathans 14/- to 16/-, and Reinettes 14/-. Of the Pears, Beurre Bosc realised 13/- a half-case, Packhams 13/-, Vicars 14/- a case, and Josephines 26/-. Condition generally was fairly good, but there was some waste.

Mr. H. G. Colombie, representative for Messrs. Isaacs and Sons, London, reports having received the following cables:—

**London** (17/4/25).

"**South Australian** Jonathans, 17/- to 18/-; Cleos., 15/- to 17/6; bulk, 17/- to 17/6; Pears, very ripe, partial sale, 17/- to 19/-; defective, 9/-. **Tasmanian** C.O.P., 14/6 to 22/-; bulk, 16/- to 18/6; R.P., 12/- to 16/6; Alf., 11/6 to 15/-; A.L.X., 11/6 to 14/-; Cleos., 14/6 to 17/6; S.P.M., 13/- to 15/6. Good demand."

**London** (21/4/25).

Market shilling firmer. Pears valueless; rotted almost immediately after discharge.

**London** (22/4/25).

"Otira," good demand. Jon., 15/6 to 18/-; Dunn's, 15/6 to 16/-; Munro's, 15/- to 17/-; Cleos., 17/6 to 18/-. Pears, Bosc, ripe, 15/- to 20/-; Clairgeaus, 14/- to 15/6; Anjous, 19/- to 22/-. Capiamont unsold; poor offers. **Tasmania.**—Few landed, "Esperance Bay," Ribstons, 13/- to 15/6; Worcesters, 14/- to 15/-; Alexs., 12/- to 13/6; Cleos., 16/-; Cox's, 19/- to 20/-.

"Esperance Bay," further sales sixpence lower. "Otira," Capiaumont Pears, very inferior, almost valueless. West Australian, part "Runic," "Esperance Bay," Jons., 14/- to 18/-; Dunn's, 16/- to 19/6; Cleos., 16/- to 20/-; Adams, 15/- to 18/6.

**London** (28/3/25).

"Maloja."—Glou Morceau Pears, ripe, trays, 4/- to 4/6. **Victorian** halves, Josephine, 10/- to 11/-; Winter Nelis, 8/3 to 9/3; Cole's withdrawn. **Tasmanian.**—Trays, Duchess, 3/9 to 4/-. **South Australian.**—Grapes, slightly defective, 11/- to 15/6; Wets, 5/- to 7/9. Apples, **Victorian**, "Otira," **Tasmanians**, "Esperance Bay," shilling lower.

**London** (25/3/25).

**London** (29/4/25).

Sold part "**Maloja**," improved quality. **Australian** Jonathans, 15/- to 17/6; Cleos., 17/- to 18/6; Dunn's Seedlings, 16/- to 17/6; Pears, Glou Morceau, balance defective, 1/11 to 4/-; Tray, Victorian Jonathans, Five Crowns, 13/6 to 16/-; Munro's, 15/- to 16/-; Pears, Cole's, halves, 5/6 to 6/3. **Tasmanian.**—Ribstons, 13/- to 15/6; Cox's, 14/- to 20/-; Alf., Alx., Worcesters, Clarence, 12/6 to 15/-; York's, 14/6 to 16/-; Pears, boxes Napoleons, Vicars, 9/- to 10/-; Bosc, 10/- to 10/6; Clairgeau, 15/- to 16/-; Halves, Vicars, Napoleons, 3/6 to 4/9; Capiamont, 7/- to 7/6; Clairgeau, 4/9 to 8/-; trays, Duchesse, 2/8 to 5/3; Bosc, 3/- to 6/3; Clairgeau, defective, Vicar's, Cole's, 3/3 to 5/-; Capiamont defective, 1/2 to 1/6.

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**Hull** (6/4/25).

Victorian Pears ex the steamer "Surrey" offered at Hull realised the following prices:—William Bon Chretien realised 2/6 to 8/3 half cases, most selling at 6/- to 6/6, while Beurre Bosc brought 19/9 a case.

**Hull** (20/4/25).

The following cable was received from Messrs. B. and J. Shaw by their representative, Mr. H. G. Colombie:—

"**Esperance Bay**" part landed **Tasmanians** 14/- to 18/-, mostly 15/- to 15/6; C.O.P.S., 21/- to 21/6; **West Australian** Jonathans, Dunns, mostly to 17/-; Cleos., 18/- to 19/-; Grapes, 15/- to 21/6. **South Australian**, 14/- to 16/6; C.O.P.S., 21/6 to 25/-. Good demand."

**Liverpool** (27/4/25).

Mr. H. G. Colombie reports having received from Messrs. MacGeorge & Jardine, the following cable, dated 27th April:—

"**Ulysses**" 7,300 cases **Victorians**, offered. Jonathans, 14/- to 17/9—majority, 15/- to 16/6; Cleos., 16/- to 18/6; D.F., 16/- to 17/-.


**SWANN & Co.**

**Established 1822.**

**A century's experience in handling**

**FRUIT OF ALL DESCRIPTIONS**

**All Consignments for U.K. will have Personal Supervision and Attention**

**Account Sales and Cheques despatched immediately after sale.**

**3 SALTER'S HALL COURT, London, E.C., England**

**Cables:—FIREBRICKS, LONDON**
**Bankers:—Bank of England.**

**Australian Representative**
**Chas. E. Howship, 129 Queen-st., Melbourne, and Surrey Chambers, Perth, W.A.**

**Victorian Agent: H. M. Wade & Co., 471 Flinders Lane, Melb.**


### Germany.

**Hamburg** (23/4/25).

**Victorian** Apples ex the steamer "Otira" met with a strong demand. Cleopatras brought 18/- to 27/- a case; Jonathans, best, 18/- to 23/-; greenish, 13/- to 17/-; Munro's, 14/- to 23/-; and London Pippins, 10/- to 18/- a case.

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**Holland** (28/4/25).

The Algemeene Vruchten Import Maatschappy, of Amsterdam, advices per cable, 28/4/25, to Mr. H. G. Colombie, as follows:—

**Australians**, very good demand here, transhipments obtains Jons., 18/- to 20/6; Munro's, 15/- to 22/-; Spitz., 19/6 to 22/6.

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### New South Wales.

**Sydney** (23/4/25).

Mr. F. Chilton, City Fruit Markets, reports under date, 23/4/25, as follows:—

Queensland Fruits:—Bananas, 16/- to 30/- per case; Pines, 10/- to 16/-. New South Wales Fruits.—Bananas, 16/- to 30/- per case; Lemons, 4/- to 10/- per bushel case; Oranges, second crop, 3/- to 10/-; Mandarins, second crop, Emperor, 8/- to 20/-; Quinces, 4/- to 6/-; Apples, Jonathan, 7/- to 10/-; Fanny, 7/- to 9/-; F.C.P., 4/- to 7/-; Granny Smith, 5/- to 11/-; Pears, Packham, 6/- to 12/-; W. Cole, 6/- to 12/-; Cucumbers, 4/- to 7/- per half case; Passions, 5/- to 11/-; Persimmons, 2/- to 3/6; Tomatoes, 2/6 to 7/-; Grapes, Black Cornichon, 5/- to 8/-; White Sherry, 3/- to 7/-; Black Muscat, 6/- to 11/-; White Muscat, 4/- to 10/-. Victorian Fruits: Apples, Jonathan, 5/- to 10/- per bushel case; cooking varieties, 4/- to 7/-; Pears, B.D.C., 5/- to 7/-; B.B., 5/- to 8/-; Howell, 5/- to 7/-; Quinces, 5/- to 7/-. Tasmanian Fruits:—Apples, T.P., 6/- to 8/- per bushel case; D.C., 5/- to 8/-; Jonathan, 7/- to 10/-; Alf., 3/6 to 6/-; F.C., 6/- to 9/-; Pears, W.C., 3/6 to 5/6 per half case; B.D.C., 2/6 to 4/-; B.B., 3/- to 4/-; W.N., 3/6 to 5/-; N.A.P., 4/- to 6/- per bushel case.

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### Victoria.

**Melbourne** (29/4/25).

Apples, eating, choice, 5/- to 7/- per bushel case; cooking, 4/- to 5/6; Pineapples, Queensland, 14/- to 18/-; Bananas, choicest, 28/-; others, from 16/-, according to quality; Grapes, Muscatels, 6/- to 9/-; Walthams, 7/- to 9/-; Doradillos, 4/- to 5/-; Passion-fruit, Victorian choice, 8/- to 10/-; Lemons, 10/- to 12/-; Pears, Beurre Bosc, 4/- to 6/-; Keiffer's, 3/-; Tomatoes, 4/- to 7/-.

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### South Australia.

**Adelaide** (23/4/25).

The following are the prices ruling:—Apples, eating, 8/- to 10/- per bushel case; cooking, 6/- to 8/-; Pears, eating, 10/- to 12/-; cooking, 6/- to 9/-; Bananas, 30/- to 34/- per case; Figs, 8/- to 10/-; Grapes (dark), 8/-; Lemons, 8/-; Oranges, common, 10/- to 12/-; Passion-fruit, 16/- Pines, 18/- to 20/-; Pomegranates, 5/-; Quinces, 4/- to 5/-; Dates, 4d. lb.


**GYPSUM**

**Without parallel as a Soil Corrective at Very Moderate Cost**

***Splendid results obtained by its use in citrus and other orchards***

**Also Lucerne plots**

Write for descriptive pamphlet

**ARTHUR H. HASELL**

*17 Queen Street, Melbourne*
*31 Hunter Street, Sydney*
*Lipson Street, Port Adelaide*

### Queensland.

**Brisbane** (25/4/25).

Locals, Lemons, 12/- to 14/- per bushel case; Passion-fruit, 6/- to 10/-; Custard Apples, 4/- to 7/-; Persimmons, 4/- to 7/6; Grape fruit, 1/- to 3/-; Papaws, 2/- to 4/-; Pines, rough leaf, 6/- to 12/-; smooth, 3/6 to 10/-; Grapes, choice, 5d. to 6d. lb.; others, 2d. to 4d.; Oranges, 5/- to 8/- bushel case; Mandarins, 10/- to 16/-.

### Tasmania.

**Hobart** (25/4/25).

Apples, Del., choice, to 9/3 per bushel case; others, 4/- to 7/3; N.Y.P., choice, 8/-; others, to 6/9; C.O.P., good, to 6/-; others, to 3/-; L.S., medium, 4/6 to 4/9; S.T.P., choice, 6/10 to 7/3; others, 2/6 to 4/-; S.P.M., good, 5/9 to 6/-; others, to 4/-; Jon., good, 5/9 to 6/4; others, 3/6 to 4/6; F.C., good, to 5/9; others, to 3/9; C.P.M., choice, to 9/-; others, to 6/3; T.P., medium, to 4/5; Alf., medium, to 4/6; B.P.M., small, to 3/3; A.P., to 5/1; Pears, B.D., to 6/8; G.S., to 4/-; B.D.C., to 3/6; Peaches, to 5/9.

### West Australia.

**Perth** (21/4/25).

Apples, Jon., prime, 7/- to 13/6 per dump bushel case; others, 4/- to 6/-; Cleos., prime, 6/- to 10/-; others, 4/6 to 5/-; Dunn's, prime, 7/- to 9/6; others, 4/6 to 6/6; Granny Smith, prime, 11/- to 13/6; Lemons, prime, 5/- to 7/-; others, 3/- to 5/-; Oranges, prime, 10/- to 12/3 flat bushel case; others, 6/- to 10/-; Grapes, 6/6 to 10/-; Pears, Bergamots, prime, 3/- to 6/6; others, 2/- to 5/-; Passion-fruit, ½th bushel, 6/6 to 9/6; ¾ bushel, 25/-; Quinces, 4/6 to 5/-.

### New Zealand.

**Dunedin** (9/4/25).

Reilly's Central Produce Mart report under date 9/4/25:—Keen demand for Grapes. Choice dessert Apples and Pears.

Apples, Cox's, 10/6, 14/-; Delicious, 11/-, 14/-; cooking, 5/-, 6/-; Lemons, N.Z., 15/-, 17/6; Italian, 30/-; Oranges, Italian, 38/-; Australian, 34/-; Bananas, Fiji's, to 40/-; Passions, N.Z., 12/-; Australian, 20/-; Grapes, Oamarus, 1/1½, 1/6; locals, 1/7; Gros Colmars, 3/-; Tomatoes, locals, 5d., 8½d.; Christchurch, 2d., 3½d.; Otago Central, 4d., 4½d.; seconds, 1½d., 2d.; Peaches, dessert, 4d.; cooking, 2½d.; Quinces, 1½d., 2d.; Pears, dessert, 2½d., 3d.; cooking, 1½d.


**IS IT A STOMACH COUGH?**

If your cough is a chest cough, this does not interest you. But if it is due to stomach disorder, and is accompanied by a furred tongue, phlegm in the throat, and a general feeling of "goneness," it is time you took a dose of A.M.S. This herbal extract is a wonder worker, and a positive cure for Indigestion and Liver troubles. A few drops after every meal is keeping thousands in perfect health, and buoyant spirits. A.M.S. costs 3/- the bottle, by Post 3/6, and can be procured from all chemists or country stores, or direct from T. A. Dickson, Chemist, Geelong, Victoria.


## Imperial Trade Preference.

**Important Announcement.**

**In announcing the terms of the Budget Statement in the British House of Commons, the Chancellor of the Exchequer (Mr. Winston Churchill) stated that the Government would give effect to the Empire Preference proposals made at the Imperial Conference in 1923.**

The items have been previously dealt with in detail in the "Fruit World."

As applied to **dried fruits** the position is:—

At present dried Figs, Raisins and Plums (includes Apricots), are dutiable at the rate of 10/6 per cwt. if from foreign countries, and enjoy, if of Empire origin, a preference of one-sixth, i.e., of 1/9 per cwt. It is proposed to admit these goods free of duty from the Empire, so that Empire Raisins, Figs, and Plums will enjoy a preference of 10/6 per cwt.

At present dried Currants are dutiable at 2/- a cwt. (foreign), and enjoy, if of Empire origin, a preference of ½ (4d.), the Government is prepared to offer free admission to Empire Currants and consider what increased duty necessary on foreign Currants to make preference effective.

Other dried fruits now free of duty, but Government proposes duty of 10/6 cwt. on such foreign fruits (**e.g.**, Apples, Pears, and Peaches) as Dominion representatives consider necessary.

The new duties operate as from July 1st.

Great satisfaction has been expressed by the Prime Minister (Mr. Bruce), the Minister for Migration and Markets (Senator Wilson), the Premier of Victoria (Mr. John Allan), the Minister for Agriculture (Col. Bourchier), and representatives of the trades and industries concerned.


**FOR SALE**
**PRUNE TREES**

We have the following varieties of well-grown Prune Trees
FOR SALE

Prune D'Agen. President.
Robe De Sargeant. Sugar.
Coates 1418. Coates 1403.
(Latest Californian Prunes.)

**Prices are as LOW as they can be made.**

For further particulars, write to
**D. W. IRISH & SONS**
*"Indaola Citrus Grove,"*
**BAMAWM, - - Victoria.**


## Classified Advertisements.

**Wanted and For Sale.**

Advertisements under this heading, which cannot exceed one inch, will be classified as far as possible.

Prices are as follows:—

Casual Advertisements, one or three months—9d. per line of six words. Nine lines to the inch.

Contract Advertisements, six or twelve month, 6d. per line of 6 words, 9 lines to the inch.

Send cash with order.

**FOR SALE.**

EXTON Late Prolific Raspberry Canes, also Filbasket and Thornless. Particulars,
CHARLES EXTON & SONS,
"Wentwood,"
Kinglake, Vic.

TRACTOR Plough, Harvey 3-furrow; very little used, splendid order. Cost £56. Will sell for £36, free on rail, Oakleigh. Apply Elinora Orchards Company, Wheeler's Hill.

**ORCHARD PROPERTY.**

WANTED.—Apple Orchard (small preferred), near Melbourne. Must be good. State Varieties, Price, etc.,
"GENUINE,"
C/o "Fruit World" Office, Melbourne.

**SITUATION WANTED.**

GENTLEMAN wants position as Manager. Experience all classes fruitgrowing. Apples specialty. Apply "Sturmer, c/o "Fruit World."

ORCHARDIST, Tasmanian and Victorian experience. — Services available. Capable managing; good references. Apply, "Deciduous," c/o "Fruit World."


**LEMONS.**

**We are the Largest Buyers in Australia.**
PROMPT SETTLEMENTS.
**C. M. BROOKE & SONS**
73 Whiteman St., South Melbourne, Vic.

# "CARLTON" Lead is Codlin's doom
# Cleans the Orchard like a broom!

**EVERY POUND OF "CARLTON" ARSENATE OF LEAD will go further and kill more grubs than a pound of any other paste, simply because the "CARLTON" is stronger and better-made than all others**

1.—The "CARLTON," as you buy it, is guaranteed to contain 20% Arsenic Pentoxide (the poison). No other gives a guarantee anywhere near this.

2.—You obtain 8 or 10 lbs. more solids in every 100 lbs. of the "CARLTON." It contains only about 37% of moisture.

3.—It has exceptional suspension qualities, enabling the poison to remain evenly distributed right through the spray.

4.—Owing to its extreme fineness it spreads and sticks without the use of a spreader.

## Order "CARLTON" and make sure of a CLEAN Crop

## F. R. MELLOR, 440 Elizabeth St., Melbourne

## The Royal Agricultural Society of Victoria

# GRAND ANNUAL EXHIBITION

## 9 DAYS

## 17th to 26th September, 1925

*Fruitgrowers!—This is the Show at which you should exhibit*

**Over £400**

is offered in PRIZE MONEY, in addition to FOUR HANDSOME SHIELDS.

**ENTRIES CLOSE Saturday, 15th August, AT NOON**

Prize Schedules, Entry Forms, etc., on application to—

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*Collins House, 360 Collins Street, Melbourne.*

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## DRY
# ARSENATE OF LEAD

FOR SPRAYING OR DUSTING.

PACKED IN STRONG ROPE FIBRE BAG

EASY TO HANDLE
EASY TO MEASURE
**NO DUST**

"ELECTRO" Dry Arsenate of Lead represents the highest development in Spraying Material.




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ARSENIC (metallic) in water soluble form not more than 5%

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BORDO MIXTURE — BORDO LEAD MIXTURE — BORDO CALCIUM MIXTURE AND ARSENATE OF CALCIUM

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Box 2123, G.P.O., SYDNEY,
N.S.W.

DISTRIBUTORS WANTED for West Australia. *Apply* RICHARDSON, ORR & Co., 62 A.M P. Buildings, PERTH.
,, ,, ,, Tasmania. *Apply* RICHARDSON, ORR & Co., 73 Murray Street, HOBART.

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"FRUIT WORLD OF AUSTRALASIA."

Representing the Deciduous, Citrus and Dried Fruits Industry of Australasia.

Published the First of each Month.

**Editorial and Management Notices.**

**Articles and Photographs.**—The Editor will always be very pleased to receive articles and photographs for publication. Articles on spraying, pruning drainage, marketing, and other cultural matters, and reports of meetings, are welcomed. Please write on one side of paper only; include name and address (not necessarily for publication). Press matter sent in an open envelope, marked "Printer's MSS.," postage rate: 2 ozs., 1½d. Photographs, if sent in an open-ended package, marked "Photos. only," will travel at 2 ozs., 1½d. A short description of the photos. should be written on the back.

**We do not hold ourselves responsible for the views expressed by our correspondents.**

**Subscriptions.**

The annual subscription, post free within Australia and New Zealand, is 8/6. All other places, 10/6, post free. New subscriptions can commence at any date. Subscribers should notify us immediately of any change of address.

**Renewal Subscriptions** are due during the last month of the term covered by the previous payment, and unless notified to the contrary, the fact that the subscriber continues to accept delivery of the journal, is taken as proof that continuation of the subscription is desired, and we will continue to send regularly until notified in writing or copies are returned through the post.

**Advertisements.**

"The Fruit World of Australasia" is an advertising medium of proved value. Advertising rates may be had on application to our Head Office, or to agents in the various States, as set out below.

Changes of copy for advertisements must be in our hands on or before the 17th of the month prior to publication.

Readers are asked to make their purchases from our advertisers, who cover all lines of interest to orchardists, at the same time mentioning this journal. By so doing, the grower, the advertiser, and this paper will benefit.

Every care is taken to publish advertisements from reliable houses only, and to see that advertisements of an undesirable nature are not published. The management reserve the right to refuse to publish any announcements that they may regard as undesirable, either from the point of view of the goods offered or in the wording of the advertisement, notwithstanding the fact that a contract may have been entered into for the use of a certain space.

"The Fruit World" Offices (where copies and full particulars are obtainable) are as follows:—

**Victoria** (Head Office): 9 Queen Street, Melbourne. **New South Wales:** Carruthers, Farrum & Co., 77 King Street, Sydney. **South Australia:** W. F. McConnell, Grenfell Buildings, Grenfell Street, Adelaide. **Tasmania:** Saunders & Co., Murray Street, Hobart. **Western Australia:** D. L. Hetherington, Colonial Mutual Buildings, St. George's Terrace, Perth. **Queensland:** Gordon & Gotch Ltd., Queen Street, Brisbane. **New Zealand:** Gordon & Gotch Ltd., Wellington, Dunedin and Auckland. **Great Britain:** Harvey H. Mason, 1 Mitre Court, Fleet Street, London, E.C., England.

R. E. BOARDMAN, A.F.I.A., Managing Director and Editor.

E. H. WRAGG, Secretary and Advertising Manager.

**Tasmanian Director:** HON. L. M. SHOOBRIDGE, M.L.C.

# Advertising Fruit.

ADVERTISING IS destined to play a much larger part in stabilising and developing the fruit industry than has hitherto been recognised by growers. But the movement will need to be adequately organised and financed, when the results will be certain.

During last summer the Victorian Pear growers carried out an "Eat More Williams Pears" campaign, and achieved notable success. With a very modest expenditure posters were displayed on railway stations in Victoria and N. S. Wales.

Nearly a quarter of a million pamphlets describing the merits of Williams Pears were distributed. Generous notices were given in the press. Factors which militates against the triumph of the campaign were the shipping strike, the glut of soft fruits, the lack of adequate statistics regarding the crops of soft fruits coming forward, and the caution exercised by factories in obtaining their supplies of Pears because of the uncertain state of the canned fruit market. Yet, in spite of these factors, the sale of Pears was greatly increased—this being the testimony both of shopkeepers and representatives of the general public.

This good work needs to be followed up, as the cumulative force of advertising is its greatest strength. It is to be hoped that all growers of Pears will swing in behind this movement, and that all sections of the fruit-growing fraternity will set aside a portion of their earnings into this necessary channel of market development.

Growers of Apples and Pears missed a great opportunity for advertising by failing to grasp the significance of the sign of "Garden Week" in Melbourne (March 30 to April 4), the biggest and most successful horticultural effort of its kind ever attempted in Australia.

Fruit shows in country districts are very necessary and desirable, stimulating local interest and pride, as well as advertising the districts. But what could be more effective in advertising fruit generally, than a big combined fruit show in Melbourne every Autumn?

There is to be another "Garden Week" in Melbourne in the coming Spring (October 7, 8 and 9), when displays of Citrus and dried fruits will be invited.

If fruitgrowers will boldly encourage these "Garden Week" displays and give practical assistance by exhibiting, much will be accomplished to the benefit of all concerned.

True merit is like a river; the deeper it is the less noise it makes.

## EXPORT SHIPPING NUMBERS.

The Superintendent of Horticulture for Victoria (Mr. J. M. Ward) states that in a communication to the Government, the Agent-General draws attention to the importance of Apple shippers adopting numbers on their cases when shipping Apples to England, the same as is done when forwarding fruit to Sydney and Brisbane.

The adoption of these prevents mistakes in taking delivery of the fruit and saves time at the docks.

Any grower or shipper of Apples desirous of obtaining the shipping number of any English firm who handles Australian fruit can obtain same on application to the Agricultural Department's office, 605 Flinders-street, Melbourne.

## A NEW APPLE.

### Valuable Late Keeper.

The new Apple, variety **Elsie Grant**, illustrated on this page, is a cross between Rokewood and Yates. The tree is blight proof, a heavy bearer, strong grower. The fruit is of good keeping quality, of nice flavour; June is the picking time. The Apple is firm and a good carrier. The fruit comes too late for export, but is excellent for a late local and interstate market.

The color of the fruit is wonderfully good. It is a superior looking Apple to either the Rokewood or Yates, is much more easily grown than the latter, and there is not so much in the way of small fruit. The trees resemble Yates in habit. The variety was raised by Mr. T. H. Grant, of Beaconsfield, Vic., a few years ago, and has been thoroughly tested. The tree is very hardy, and should thrive under practically any orchard conditions.

## BIG JUICE SHIPMENT.

The juice from 450,000 oranges—three carloads—was shipped east on one day recently by the California Crushed Fruit Co. of Los Angeles. This was the record one day shipment by this company (states the "California Citrograph" for May, 1925). The juice went to wholesalers in Philadelphia, Chicago and New Orleans. The next day a carload of juice was sent to a wholesaler in San Francisco. This company, which produces the Mission orange and other fruit juices, is completing a £15,000 brick and steel addition to the main crushery plant at Los Angeles. This will give them double their former capacity for bottled juice of Oranges, Lemons and Grape fruit.

# Problems of Refrigerated Fruit Transport

## THE NECESSITY FOR SCIENTIFIC RESEARCH

THERE IS URGENT necessity for improvements in the overseas transport of fresh fruit.

With regard to **Apples**, the recent investigations by English scientists, and by Mr. F. W. Wakefield, of Tasmania, with reference to brown heart, disclosed factors which had not been previously taken into account, particularly those relating to the respiration of the fruit and the removal of excessive carbon dioxide from ships' holds.

The export trade in **Oranges** from Australia is as yet in its initial stages. Whilst Oranges have travelled safely in small chambers, the sending of larger quantities in refrigerated holds has been attended with severe losses.

Similarly, with respect to **Pears, Grapes, Peaches** and other fruits, there yet remains much detailed scientific work to be done to investigate the cause of losses, so that same may be removed, enabling a satisfactory export trade to be built up on sound economic lines.

At the present time the risk of shipping is borne by the growers. This position has again and again resulted in heavy financial loss on export, and has unfortunately reacted on established markets. Fruit transport must be improved. Claims totalising £250,000 were made for damage sustained by Australian fruit in transit three or four years ago.

We contend that this loss in transit is very largely preventable by improvements in methods of transport.

### What Has Been Done?

When the underwriters declined to cover the risks, an Insurance Fund was initiated in Tasmania, by an export levy. This fund was established for the purpose of fighting claims against shipping companies. Research work was initiated by Mr. J. P. Piggott, M.H.A., in the University of Hobart, and an instrument for the guidance of ships' engineers was evolved there, and has since been adopted by the shipping companies in the control of hold conditions.

The Agent-General for Tasmania took up the matter from the other end, and induced the Department of Scientific and Industrial Research, London, to investigate the subject. The fruit interests of Australia appreciate the financial support given to this body by the Commonwealth and State Governments in connection with these necessary investigations.

The Tasmanian Fruit Advisory Board sent their own scientists home to Cambridge to co-operate with the English investigations. Arrangements were made with the shipping companies subsequently for the return of Mr. Wakefield, the Tasmanian scientist, to Hobart, armed with all the technical information available, to instruct and co-operate with the engineers handling fruit cargoes.

**At the last meeting of the Australian Fruit Council a committee was appointed to draw up a report dealing with scientific research into the fresh fruit transport.**

**The committee consisted of Messrs. F. W. Wakefield (of Tasmania and Bristol), W. Ranger (Queensland), and R. E. Boardman (Melbourne).**

**A summary of the report is published herewith. This could properly form the basis of an effective programme for improvements in fruit carriage.**

This policy has unquestionably resulted in vastly improved transportation. Further research and such a policy should certainly be continued here in Australia.

South Africa is fully alive to this fact, and has recently created a branch of the Department of Agriculture to deal exclusively with this matter of fruit transport and storage. The subject is highly technical, and the University of Cambridge is becoming recognised as a world centre of available information on the subject.

### The Research Work Necessary.

Fruit transport is essentially a Commonwealth matter as distinct from separate State efforts.

**It is proposed that the separate items of technical research undertaken in the various States should be co-ordinated on a Commonwealth basis, preferably in co-operation with Cambridge University.**

**The general scheme of co-ordination and co-operation to be centred in the Institute of Science and Industry, Melbourne.**

By making the Institute of Science and Industry, Melbourne, a centre for co-ordinating and directing researches in Australia, and a channel for co-operation with other institutions in Great Britain, the entire field of fruit transport can be covered. **This is largely a matter of organisation, and specifically not cost.**

It must be recognised that the field to be covered is one of exceptional breadth, and absolutely demands team work and organisation. We have the trained men here in our University, colleges and departments, with the necessary knowledge and equipment, but it is necessary that the work to be undertaken shall be sub-divided, organised and co-ordinated. **This organisation is a vital necessity**, and should be the chief function of the Commonwealth Institute.

### Sub-division of Work.

The whole subject of fruit transport may be divided into three main divisions:—

(1) **The Fruit.**—A study of maturation factors, and pathological study of the influence of external conditions thereon.

(2) **The Ship's Hold.**—A study of the conditions operating on the fruit cargo in the holds of ships.

(3) **Co-operation between Producer and Ship's Engineer.**—A clear understanding of the difficulties and limitations with which each has to contend in present-day commercial practice, will go far to provide a natural correction of obvious errors and lead to improvements in the present system.

The first and third divisions of this work can only be done **here in Australia**, using Australian fruit grown and handled under Australian conditions.

The second division—the ship's hold—can best be studied by the English investigators. A most complete liaison should exist between the two. Costs of this second division researches should be a direct **charge against the shipping companies** or the Imperial Government. Australia should be asked to carry only the costs of the **work on the fruit here.**

In other words, we must investigate the potentialities of our own fruit here, define the conditions required, and it then becomes the responsibility of the shipowner to actually provide the conditions demanded by our fruit, for its safe and satisfactory transport. An exchange of personnel between the University of Cambridge and the Institute of Science and Industry, would be of great value in creating a spirit of co-operation on the matter.

It is believed that such co-operation would be most favorably received in England.

### Suggested Work at Institute of Science and Industry, Melbourne.

(a) Standardisation of methods. (b) Study of probable errors in horticultural experimentation. (c) Direction, organisation, and collation of researches. (d) Co-operation with

Cambridge. (e) Co-operation with shipping companies. (f) Co-operation with fruitgrowers' organisations. (g) Work on instruments for use in ships' holds.

**Suggested Work at Hobart (by Professor Flynn).**

(a) Maturation spectrums of Apple and Pear. (b) Temperature relation of maturation constants. (c) Special co-operation with ships' engineers.

**Work in Other Co-operating States.**

(a) Maturation spectrums of citrus fruits and stone fruits. (b) Maturation spectrums of Grapes, Tomatoes and other fruits. (c) Maturation constants and temperature relations. (d) Maturation constants and gaseous exchanges. (e) Mould development in relation to humidity and other hold conditions, and control.

**Costs of the Investigations.**

The costs of each item of research should be shared proportionately by the State Governments concerned, and the Commonwealth Government, the necessary funds for subsidising such research to be placed at the disposal of Sir George Knibbs, but always subject to the co-operating State concerned finding a similar amount on a £ for £ basis.

The separate items of research could each be made the basis of a technical thesis for publication by the individual workers in the various States. Such persons to be appointed on the recommendation and under the personal direction of a responsible State authority, with the approval of the Director of the Institute of Science and Industry.

A general idea of the Commonwealth financial requirements is set out hereunder:—

| | |
|---|---|
| (1) **To Institute of Science and Industry.** | |
| Salary .. .. .. .. .. .. .. | £350 |
| Special apparatus .. .. .. .. | 50 |
| Travelling expenses.. .. .. .. | 100 |
| (2) To each co-operating State | 200 |

In explanation of item (2), the suggestion is that the various States interested in fruit export should provide a sum of £200 for this necessary research work, same to be contributed by the growers, business houses and State Government concerned, the sum of £200 thus raised to be supplemented by £200 for each State from the Federal Government, making £400 available in each co-operating State.

It is anticipated that the results of each item of research will be of immediate value, and that the entire field could be covered in about three years, if the principal exporting States co-operate on the lines set out.

(Signed) F. W. WAKEFIELD.
W. RANGER.
R. E. BOARDMAN.

# Organising the Fruit Industry.

## District State and Federal Council.

## Growers Must Face Arbitration Proceedings.

PROBABLY the most outstanding subject in the minds of fruitgrowers just now is that of organisation. This problem has always been present, but during the past few years it has become accentuated because of the large areas planted under the repatriation policy.

It is not intended here to express any opinion as to the wisdom or foresight of that programme, but rather to look facts in the face.

Allowing, too, for the fact that the dried fruits industry is controlled for the next two years by State and Federal legislation, let us look more closely into the position as it affects fresh fruits of all kinds. Right here it should be said, however, that as regards Arbitration Court awards, those engaged in fresh and dried fruit production have a common ground for unity.

In several States, Fruit Advisory Boards appointed under the auspices of the State Governments, and linked with the Federal Fruit Council, are operating with moderate success. The fact, however, cannot be overlooked that in other States, the Fruit Advisory Boards are not yet fulfilling all that its originators hoped. The report in this issue of the May meeting of the Victorian State Fruit Advisory Board is illuminating on this point.

Many problems affecting the fruit industry are local or domestic, but speaking in the broadest sense, they are Australia-wide, and national in character. Australian citrus growers have in particular recognised that their problems do not begin and end within their own borders, but rather, that the doings in one State have a profound influence on those in the other States. Hence their ideal is definitely to control their business from the Australian viewpoint, and rightly so.

Other sections of the fruit industry operating on behalf of particular fruits or natural groups of fruits must do the same, and secure an effective liaison between all the States.

After giving due credit to the Federal and State Governments for their efforts to assist fruitgrowers to organise their industry, and accepting that as an earnest of the desires of the Governments to improve the condition of the fruit producers, the limitations in this connection must be frankly faced. The Victorian Superintendent of Horticulture, speaking at a meeting of the State Fruit Advisory Board, said it was not the function of the Government to organise the growers. That sentence, generally speaking, crystallises the position. Growers must develop their own organisations, both State and Federal.

We can learn much from examples of successful organisation in various parts of Australia as well as in U.S.A., Canada, South Africa, and other countries. We can follow certain basic principles which are funddamental, and which deal with economic laws, but we must adapt the details to Australian conditions. We therefore make this first point (1) that the fruit industry is Australian wide in its economic significance.

**The Scope of the Organisation.**

Before dealing with the methods to secure the ends which are so earnestly desired, let us look at the scope of the organisations which should be created in the several States dealing with domestic matters and legislation, and functioning through a Federal Council for the matters of broader importance.

Much is heard these days regarding marketing.

There are other factors—and these include economic production, transport, advertising, research, legislation, etc. We must not become obsessed with one aspect and miss the significance of others, but must give to each its relative consideration. Here are some matters which should be, and must be dealt with, by the growers' organisations, both from the State and Australian aspect:—

Arbitration Court awards and the necessity for the continual representation of growers to protect their rights.

Scientific research into problems of cold storage and transport.

The compilation of accurate statistics regarding the kinds of fruits planted, varieties and yields.

Educational advertising to increase fruit consumption, thus improving the health of the community.

Scientific research into cultural problems, and the establishment of experimental orchards to determine the best methods of pruning, spraying, irrigation, etc.

The establishment of a Pomological and Viticultural Council to speak authoritatively as regards establishing new and improved varieties.

The establishment of plant quarantine stations through which new and

improved varieties of fruits can be imported, instead of having such new varieties shut out because of rigid embargoes.

To watch legislation and to see that the producers' interests are fully safeguarded.

This list might be added to and on each of them, treatise could be written.

As regards marketing, there are very many improvements which are necessary, not the least of which would be careful investigation into the capacity of the various centres of population to absorb stated quantities, and to see that the full quantity reaches such markets.

### Method.

The necessity for fruitgrowers to combine in an effective organisation is imperative if for no other reason than that **the Australian Workers' Union and the Federal Arbitration Court demand it.** Awards have been made against many individual fruitgrowers throughout Australia, and there is nothing more certain than that all fruitgrowers will shortly be brought under the jurisdiction of the Court.

There are very many people who are convinced that the Arbitration Court is a menace to primary industries, and that matters relative to wages and conditions should have been settled by means of State tribunals and not by such a cumbersome and expensive method as the Federal Arbitration Court. Until such time as the court is swept away, we must take facts as they are.

It will be remembered that numbers of growers have been cited under various plaints by the Australian Workers' Union. Some growers, however, have escaped from being bound by the award because of being able to file affidavits stating that they did not, at the time of the plaint, nor had they previously, employed unionists. The recent decision from the High Court now makes it possible for the Arbitration Court to make awards binding on all fruitgrowers, whether employers of labour or not, and thus it may be safely assumed that before long every fruitgrower will be bound by the awards which are made and varied from time to time.

The success of the Australian Workers' Union is due to the fact that it is Australia-wide in its scope, dealing with a court having a similar ambit. Fruitgrowers, however, have been cited in particular States or areas, and have not yet presented a united front to have their claims contested. The contesting of the claims has been a very expensive item, and even after having fought the claims in court, there still remains no organisation by which the growers can handle the next case which is certain to arise.

A fruitgrowers' organisation, to handle the case for their industry in the Arbitration Court, must necessarily be apart from Government-financed boards. Even if money were collected by means of an orchard tax to provide an organisation to carry out some of the work included in the work suggested earlier in this article, there would still remain the necessity for the supplying of additional funds to conduct Arbitration Court cases. It was because the Tasmanian growers presented their case so skilfully in the Arbitration Court, after the careful compilation of unchallengeable statistics, that that State was excluded from the operations of the Court in the last case. What would Victoria, New South Wales and South Australia give to be in a similar position? Yet, after having spent a considerable sum of money (probably £2,000), the growers are still unprepared to meet the next onslaught. The legal costs incurred in the winning of the Tasmanian case were very small indeed. Why was this? Because the work of compiling the statistics and data was done in the office of the organised producers.

Now, the point is just this. If growers would contribute a regular sum—say, 1/- or even 6d. per acre, there would be ample funds to provide the services of a capable full time secretary, the Arbitration costs would be reduced by 75 per cent., and sufficient money would be in hand to conduct the organisation with the programme above outlined.

Growers throughout Australia might profitably consider this matter. The local associations would, under the suggested scheme continue as at present, but their funds would be larger (on a 1/- or 6d. per acre basis) if the growers became seized with the importance of the matter. Through the State organisation the Federal Council could be constituted with an Executive Committee capable of functioning as required.

Pastoralists and graziers have been organised along these lines for many years, and the necessary funds have been contributed voluntarily. Why cannot fruitgrowers do likewise?

## ORGANISATION.

### "Fruit World" Articles Appreciated.

Appreciation of recent articles in the "Fruit World" is expressed by Mr. J. A. Parkes, Secretary of the Murray Citrus Growers' Co-operative Association Ltd., who writes:—

"Dr. Blatt's articles are very interesting and informative, their ideals are something to look forward to."

## ORGANISING PRIMARY PRODUCERS.

### Institute of Co-operation Formed in U.S.A.

Washington, D.C., Feb. 22.

The first session of the American Institute of Co-operation will be held at the University of Pennsylvania, Philadelphia, July 20 to August 15. This announcement was made following a meeting of the trustees of the Institute, at which arrangements were confirmed for the four weeks' conferences and courses to be located at this University.

Arrangements have been made whereby co-operative authorities of international reputation will be brought to U.S.A. to lecture upon the experience of European co-operators.

"This is the first institute of its kind to be established in the Western Hemisphere," said Secretary Charles W. Holman, in making the announcement. "The American Institute of Co-operation is incorporated as an educational enterprise. Its participating organisations at the present time number sixteen great groups of general farm organisations, co-operative organisations, and associations of state marketing officials and educators.

"A fusion of these interests for purely educational purposes, together with the active co-operation of the U.S. Department of Agriculture, makes this the most remarkable example in the United States of farm groups working together. A staff of between 60 and 70 instructors and lecturers will be engaged for the courses, and special round table discussions of specific commodity marketing problems will be features of the work. Active leaders and workers in co-operative organisations are expected to enroll from the 48 States, and a number of provinces in Canada. While the summer sessions will be conducted as a combination of a school and a conference, a number of sessions will be open to the general public."

The movement to start an American Institute of Co-operation was begun nearly two years ago among the farm organisations. A series of meetings was held by these groups during 1924, and on January 22 of this year the Institute was incorporated as an educational enterprise under the laws of the District of Columbia. Its management is vested in a board of 21 trustees, selected from a general assembly formed by the participating organisations. The officers of the Institute recently elected are:—Richard Pattee, Chairman; B. W. Kilgore, Vice-Chairman; Chas. W. Holman, Secretary; Lloyd S. Tenny, Treasurer.

The participating organisations are:—The National Grange, Patrons of

Husbandry, the Farmers' Educational and Co-operative Union of America, the American Farm Bureau Federation, the Sun-Maid Raisin Growers of California, the Federated Fruit and Vegetable Growers, the American Farm Economics' Association, the National Association of Commissioners, Secretaries and Departments of Agriculture, National Association of Marketing Officials, the American Committee on the International Institute of Agriculture at Rome, the Staple Cotton Co-operative Association of Mississippi, the National Pecan Growers' Exchange, the National Board of Farm Organisations, the Illinois Agricultural Association, the Pennsylvania Farmers' Co-operative Federation, the National Co-operative Milk Producers' Federation, the Farmers' National Grain Dealers' Association.

The trustees announce that the Institute will be a source from which members, employees and officers of co-operative marketing organisations, teachers of marketing in Universities and Colleges, public marketing officials, and private and public research workers will be able to secure training. Practical experience and knowledge will be pooled for mutual benefit and the advancement of sound co-operation.

The Institute will serve to clarify thought concerning the real goals of co-operative endeavour; to analyse the experience thus far accumulated, and to develop leaders and workers who can effectively serve the future needs of the movement.

The whole spirit in which the Institute is conceived is that of the social and economic welfare of the nation.

The topics for study have been developed with the four weeks' session in mind. They are so planned that students who cannot attend the full period may select such groups as best fit their convenience and needs.

The Committee on Course of Study have arranged a tentative outline for each of the weeks. This outline is as follows:—

**First Week.**—Economic Principles and Legal Structure of Co-operation.

**Topics.**—History of Co-operation; Ideals of the Movement; Development of Types; Possibilities and Limitations; Status of State and Federal Legislation; Education in Co-operation.

**Second Week.**—Organisation and Membership Problems.

**Topics.**—Preliminary Market Surveys; Forms of Organisation; Organisation Finance; Patronage Costs; Educational Work with Members; The Co-operative and the Community.

**Third Week.**—Operating Methods and Management.

**Topics.**—Source of Personnel; Business Practices; Auditing and Accounting; Marketing Finance; Warehousing; Grading and Standardisation; Methods of Pooling.

**Fourth Week.**—Sales Policies and Price Problems.

**Topics.**—What is Meant by Orderly Marketing; Selling Plans for Principal Commodities; The Development of Markets; Price Objectives of Co-operatives; Selling Problems; Credits and Collections; Effect of To-day's Price on To-morrow's Production.

## Personal.

**Dr. Geo. E. Payne Philpots,** who is President of the Food Education Society, is doing a great national service by advocating the use of food containing vitamines and health qualities. Dr. Philpots urges the necessity for the consumption of wholemeal bread and the eating of fresh and dried fruits. In this way he is rendering notable service to the industry.

* * *

**Hon. L. M. Shoobridge, M.L.C.,** retains his position in the Tasmanian Legislative Council, having been elected for the Derwent constituency by an overwhelming majority on the first count.

* * *

**Mr. Frank Walker,** nurseryman and fruitgrower, of Lalla, Tasmania, visited N. S. Wales and Victoria during May. The fruit tree nursery business having been slack for several years, Mr. Walker and his sons have devoted more attention to growing ornamental and other shrubs. A particularly fine lot of Rhododendrons has been raised.

* * *

**Mr. A. J. Honey,** the energetic Secretary of the Tasmanian Farmers, Stockowners and Orchardists' Association, passed through Melbourne at the end of May on his way to Sydney and Brisbane. Mr. Honey attends to many details connected with his organisation, not forgetting the preparation of statistics when Arbitration matters come before the Court. That fruitgrowers throughout Australia should organise on similar lines is Mr. Honey's firm conviction.

**Mr. Gerald Mussen,** who rendered much service to Australian citrus growers, and who is now in England, has been granted twelve months' leave of absence from the Victorian State Fruit Advisory Board.

* * *

**Mr. A. Goodhew,** Nurseryman and Fruit Grower, of Goulburn, N.S.W., during May visited Victoria and South Australia, where he inspected gardens and nurseries. He visited the Mt. Lofty Ranges, S.A., and called at the Victorian Nurseries. Mr. Goodhew is seeking particulars regarding supplies of conifers.

Mr. Goodhew regretted that there had been no meeting of the Australian Conference of Fruitgrowers and the Pomological Committee. He was quite convinced that the Association was of service and of great value. He was very interested in seeing Mr. T. H. Grant's new apple—a cross between Yates and Rokewood.

## APPRECIATION.

Elgin, Cape Province, S. Africa.
(The Editor, "Fruit World.")

Dear Sir,—I enclose money order in payment of another year's subscription to the "Fruit World."

Having once had the advantage of reading it for a year I don't think I am likely to give up the "Fruit World," as I find a great deal of most interesting and useful information in it.

There is much similarity between S. African and Australian conditions and, consequently, much that is advocated in your paper is suitable for S. Africa also. I find the paper extremely valuable and often show it to friends.—E.D.G.

## AMERICAN APPLES.

The following statistics received on April 30th by the Coastal Farmers' Co-operative Society, Sydney, from their London agents, will prove interesting to apple growers:—

| | |
|---|---|
| Total actual barrels in United States, March 1, 1924 .. .. .. .. .. .. .. | 3,255,745 |
| Total actual barrels in United States March 1, 1925 .. .. .. .. .. .. .. | 2,143,432 |
| Decrease from last year | 1,112,313 |
| Total actual boxes in United States, March 1, 1924 .. .. .. .. .. .. .. | 10,739,749 |
| Total actual boxes in United States, March 1, 1925 .. .. .. .. .. .. .. | 6,031,712 |
| Decrease from last year | 4,708,037 |

The shortage this year as compared with stocks held in the United States on the 1st March last year, as indicated by the above figures, amounts to 1,112,313 barrels, and 4,708,037 boxes, and as a barrel is equal to about three boxes the total shortage is roundly 8,000,000 boxes.

This shortage is responsible for the present high rates ruling in England, and reflected in the Australian markets.

In all the States of the Commonwealth the quantity exported owing to attractive prices in London will be greater than original estimates, this will have a marked effect upon local prices and, as Tasmanian consignments are relatively light and few, if any, apples are to be expected from South Australia this year, local producers will benefit accordingly.

# Black Spot Control

## VALUABLE DEMONSTRATION WORK IN TASMANIA

(By P. H. Thomas, Tasmanian Govt. Fruit Expert.)

OWING TO THE ADVERSE climatic conditions experienced during the present and past seasons, the development of this disease has been particularly acute amongst the Apple and Pear orchards of the State.

### Occurrence of Black Spot.

Black Spot (Venturia inaequalis) is generally confined to the orchard areas existing in sub-tropical latitudes, although, given the climatic conditions producing the necessary humidity and temperature, it will develop in almost any locality. In America it is found wherever the Apple is grown, from Maine to California, being very prevalent this past season (1924) following the extremely wet conditions experienced during the spring months.

The southern mainland States, particularly Victoria, have at various times suffered from infection in various degrees, although the general warmer and drier conditions experienced are not conducive to such severe attacks as are experienced in Tasmania.

The present season of abnormal rainfall has been spread over Victoria, South Australia and New South Wales, as well as Tasmania, and reports have been received that the extent to which orchards have been attacked has been exceptionally severe.

In Tasmania, although the climatic conditions throughout the State were abnormal, those experienced in the northern districts were more adverse than those in the southern, which is the reverse to the preceding season (1923-24). In each case the persistent rains during the spring months produced the ideal conditions for spore development.

### History and Development.

The fungus mainly attacks the fruit and leaves of the Apple, but is also found on the flowers and flower stalks.

Investigations that have been made into the perithecial formation indicate that this is the principal means of carrying over infection from one season to another. The perithecia commence to form during April and May, and the ascospores mature about the following September and October. Infection is brought about mainly through the agency of the dead leaves from the preceding season; the perithecia are minute closed bottle-shaped sacs, forming in the tissue of the leaves. These contain the ascospores which ripen about the end of September and are discharged, to be disseminated throughout the orchard, making lodgment on the leaves and embryo fruits.

One of the foremost American pathologists, in the person of Professor Leroy Childs, has devoted a large amount of research work toward the control of Black Spot, commonly known as "Apple Scab" in the United States and Canada. This was particularly directed toward determining the effect of humidity in the discharge and development of the spores. With the aid of small glass slides coated with glycerine, placed in proximity with the dead leaves in the orchard, the spore discharge was calculated each day over a period embracing the early spring months.

The tables setting forth the results of this experiment are both interesting and instructive. By these the extraordinary effect of weather conditions are shown. The spore discharge reaches its height, and is intensified, following periods of rainy weather, whilst a sequence of warm, dry days reduces it to the minimum.

### Susceptibility of Varieties.

One of the outstanding features in the occurrence of the disease is the extent to which the different Apple varieties are affected. A visit to the various commercial orchards of the State will show different varieties adjacent to each other where the infection is in one case light, and in the other acute.

In general, the least susceptible varieties are those that blossom late in the season, such as the London Pippin, Worcester Pearmain, Winter Majetin, and Geeveston Fanny, whilst amongst the worst affected varieties are Cleopatra, Scarlet Pearmain and Delicious.

Many reasons have been put forward as to the cause of this range of susceptibility, amongst which are:—

The different skin surfaces being conducive or otherwise to the development of the disease.

The period of blossoming missing the acute stage of infection.

The later foliage and flower development tending to making the spray operator apply his mixtures at an earlier stage.

Whilst any of these reasons are worthy of careful investigation, they can generally be refuted when comparison is made to other susceptible kinds under like conditions and treatment.

A few years ago an exhaustive investigation was conducted into the control of Black Spot. A great deal of the research work was directed toward determining the most efficient fungicides and period of application. From these a spray programme was recommended, together with the advice to grow the lesser susceptible varieties. In regard to the latter, when one considers that the most popular commercial export varieties grown in Tasmania are generally susceptible to the disease, and where this policy would lead if applied from the view-point of other diseases and pests, it is obvious that the grower would, if he were courageous enough to embrace the suggestion, be at a loss to determine the kinds he could cultivate.

### Black Spot Control.

Fruitgrowers who are familiar with the life cycle of the fungus will be inclined to view the destruction of the dead leaves from the preceding year's crop as the surest means of prevention.

Whilst this in theory should give results, great difficulties are encountered in the practical application of any efficient treatment in this respect. Any orchardist who has tried to collect and destroy the dead leaves from his trees by raking together and burning will soon discover that this is beyond the scope of efficient performance.

The policy of ploughing the leaves under in the late autumn and suspending cultivation until early summer, so as not to disturb them is the most practical method of obtaining this objective, but cannot be carried out in the majority of fruit centres without injury to the orchard from lack of cultivation; moreover the difficulties of bringing the surface soil to a tilth after this period in a dry season are in most cases almost insuperable.

During the early growing months the tree requires all its energies to set and develop the crop. Any neglect of soil culture, especially during the period November to December, will check the development, resulting in stunted trees and under-sized fruit. In many orchards which have been treated in this way this season, very little difference is evident in the control of the Black Spot in comparison to those which have been cultivated from the commencement of the spring, except that the uncultivated trees present a more unhealthy appearance.

In every fruitgrowing centre, whether in America, Australia, or Canada, "spraying" is looked upon as the surest method of defence against infection.

Of the many fungicides that have been evolved, Bordeaux mixture (Copper Sulphate and Lime) and Lime-Sulphur still stand as being the most efficient and popular sprays. A number of new treatments effecting a combination of the materials that are used in their manufacture, and some patent applications, have been evolved during the last decade, but these have generally failed when applied on comparative plots against Bordeaux and Lime-Sulphur.

Of the two sprays, my general experience is that the Bordeaux mixture is the most effective Black Spot fungicide. This is borne out in the demonstration plots conducted by the Tasmanian Fruit Division in 1917-18, and also again this season.

The first series of experiments were conducted following the severe infection of 1916-17, but under conditions that were not conducive to the development of the disease, it being a dry spring.

**In this year, 1916-17, it was conclusively shown that one good spray of Bordeaux applied at the "pink period" would satisfactorily control during a normal season.**

During the succeeding dry years the majority of growers followed this treatment with good results, and it was not until 1923-24, when the season was as conducive to the disease as has been experienced, that it was shown that the single treatment proved inadequate under such conditions. Although during 1923-24 throughout the whole of the State the crops were generally much affected, in a number of instances, especially in the more badly infected districts, it was noticed that several orchards were carrying much better crops than those surrounding them. From a personal investigation of the spraying treatments leading up to these I found that although there was a great deal of difference in the periods of application that the better plots had invariably received a strong early spray of either Bordeaux or Lime-Sulphur before the "pink" stage.

In order to demonstrate the efficacy of various treatments and periods of application with the small amount of money available for such work, arrangements were made for the conduct of experimental plots in the Cygnet, Huon and Glengarry districts. The general aim in such plots being:—

(1) To demonstrate the efficacy of the different fungicides.
(2) To demonstrate the value of the different periodical applications.

The plots were arranged as follows:—

A. "Autumn" application of Bordeaux (6-4-40) plus "pink" application Bordeaux (4-4-40).
B. "Delayed dormant" application of Bordeaux (6-4-40) plus "pink" application Bordeaux (4-4-40).
C. "Pink" application of Bordeaux (4-4-40), plus "Calyx" application Bordeaux (2-2-40).
D. "Pink" application of Bordeaux (4-4-40).
E. Lime-Sulphur-Copper Sulphate combination applied "pink" stage—2 galls. Lime-Sulphur, 2 lbs. Copper Sulphate to 60 gallons of water.
F. Check rows untreated.
G. "Pink" application of Lime-Sulphur 1-35, plus "Calyx" application 1-60.
H. "Delayed dormant" application Lime-Sulphur 1-15, plus pink application 1-35.
I. "Pink" application Lime-Sulphur, 1-35.
J. "Autumn" application Lime-Sulphur 1-15, plus "Pink" application Lime-Sulphur 1-35.

These sprays were confined to a block of Cleopatras at A. J. Harvey's orchard at Cygnet, of the same age and with practically no variation in soil conditions.

In 1923-24 the area was much affected with Black Spot, having very little fruit and practically no foliage, also being much affected with Powdery Mildew (Podosphoera oxyacantha). In addition to the detailed sprays, the whole area was treated with Iron Sulphide in the late autumn, and again subsequent to the "Calyx" stage the following season.

The first signs of the Black Spot infection amongst the plots were observed on October 7th, when the "pink" period sprays were being applied. These were showing upon the foliage in all the untreated sections. A close examination of Plots "A," "B," "H," and "J" failed to reveal any traces of the disease. These sections, as will be noted, had received either an autumn or delayed dormant spray.

From thence onward the disease developed very rapidly, especially on the check row, and those upon which the earlier sprays had been omitted. At the end of the season a number of representative trees were chosen in each plot from which all the fruit was picked and sorted on the following basis:—

"Clean"—No Black Spot infection.
"Marketable"—(Fruit carrying Black Spot to extent of ¼ inch in area.)
"Rejected"—(Fruit carrying Black spot over ¼ inch in area).

The percentages in each plot were as follows:—

| | Clean. % | Marketable. % | Rejected. % |
|---|---|---|---|
| Plot A.—"Autumn" and "Pink" (Bordeaux) | 24 | 45 | 31 |
| Plot B.—"Delayed-dormant" and "Pink" (Bordeaux) | 62 | 29 | 9 |
| Plot C.—"Pink" and "Calyx" (Bordeaux) | 35 | 45 | 25 |
| Plot D.—"Pink" (Bordeaux) | 29 | 43 | 28 |
| Plot E.—"Pink" (Lime-Sulphur and Bluestone) | 10 | 25 | 65 |
| Plot F.—Check row untreated | 3 | 25 | 72 |
| Plot G.—"Pink" and "Calyx" (Lime-Sulphur) | 14 | 31 | 55 |
| Plot H.—"Delayed-dormant" and "Pink" (Lime-Sulphur) | 21 | 42 | 37 |
| Plot I.—"Pink" (Lime-Sulphur) | 20 | 40 | 40 |
| Plot J.—"Autumn" and "Pink" (Lime-Sulphur) | 19 | 32 | 49 |

**These figures demonstrate very clearly the advantage of the "delayed dormant" and "pink" applications against the others,** even in the Lime-Sulphur sections.

**An outstanding feature**

was the remarkable difference in fruit and foliage between the whole of the Bordeaux sections compared with the Lime-Sulphur. The former were much healthier, and carried a better class of fruit besides being generally less affected with Black Spot.

Plot E.—A combination spray, made of Lime-Sulphur and Bluestone, which was considered very effectual in

certain districts, with one "pink" application, failed to give the results expected, whilst the "autumn" applications left too long a period between that and the "pink" to satisfactorily control the development of the disease.

At the Glengarry plots the experiment was carried out over a different range. A block of King Davids upon Mr. F. Bruford's orchard, which even in the best seasons never produced a clean crop of fruit, was treated with Bordeaux on the same lines as Plot B. The crop this season is practically clean, the fruit of good quality, whilst adjacent areas in which the early "delayed dormant" treatment has been omitted are much affected.

A large number of growers situated throughout the different districts of the State sought the advice of the Department at the commencement of the season in relation to the best methods of control.

Owing to the likelihood of the infection being again severe, even with dry weather, following upon such an adverse season as 1923-4, the Fruit Division, through the medium of the press and the instructors, have **constantly emphasised the need of applying an early "delayed dormant" spray in addition to the recognised "pink" application,** leaving it to the discretion of the grower to follow with weaker applications as the season developed. This is the important spray, and lack of application makes the difference between "prevention" and "cure" as there is patent evidence that the disease is already well establishd at the "pink" period.

"Spraying," especially for diseases of the fungus order, is often neglected after a series of seasons which are not conducive to the disease. Very often the grower will compare his results with untreated areas, and decide that his crop does not show a material improvement commensurate with the outlay, being lulled into a false sense of security. The condition can be likened to the householder who questions the wisdom of continually paying his fire insurance premium.

The applications that are recommended are the fruitgrowers' insurance against Black Spot, and should the season prove conducive to its development, will put him amongst those who have the crops when the demand and prices are appreciated.

## PLANTING FRUIT TREES.

AS SOON as the site for the new fruit plantation has been decided, the first essential is to work the soil into the best possible friable condition to receive the young trees. In the Spring deep ploughing is advisable, subsequently cross ploughing, and again (if necessary) subsoiling in the Autumn.

Where hard pan is noticeable this must be broken up. In the sandy-loam soils of the irrigation areas at Murray and Murrumbidgee, the foregoing cultural directions are particularly important. By breaking up the hard pan which frequently forms, the roots are enabled to strike deeply and firmly into the subsoil.

The next operation is "pegging out," as a peg must be placed in the exact position each tree is to occupy. Altogether, about 160 pegs (split from palings, pine posts, bamboos or old box timber), each a foot long, will be needed per acre.

If the ground has been well smoothed off either with diamond harrows or farm-made "smoother" of timber, the job of pegging out will be facilitated.

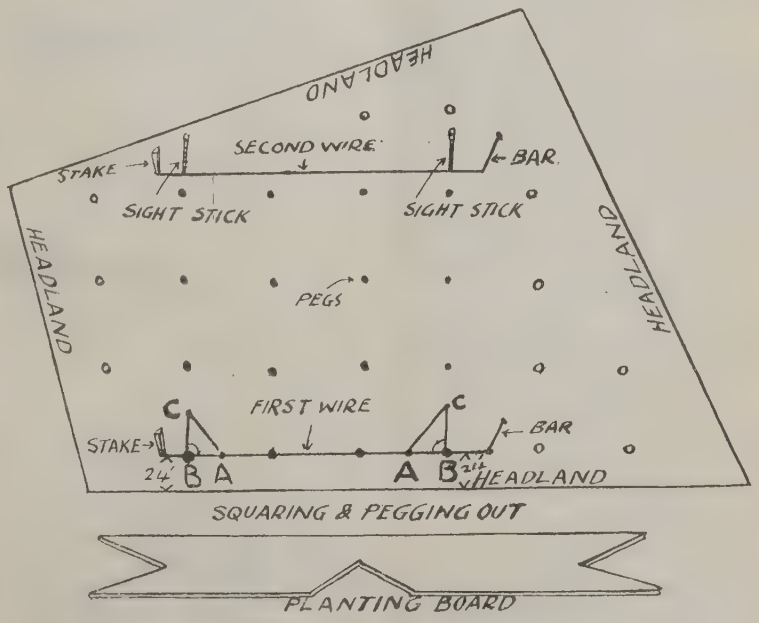
The distance between the rows will be decided on according to the habits of the trees being planted; for instance, Apricot trees should be planted 24 feet apart, as they grow into large trees, and should be given plenty of room to spread.

For pegging out, the use of two marked wires is necessary, ordinary No. 12 gauge fencing wire marked every 24 feet with paint, or blobs of solder, or adhesive tape will serve the purpose.

Fix a ring or loop at each end, then a solid stake can be driven through the ring at the base-line end, while a bar may be used for pulling the wire tight at the far end.

After measuring off 24 feet from fence or channel for a "headland," run the wire out parallel to the fence and pull tight—this forms your "base line," and a peg should be placed at each mark on the wire.

The easiest and only practical way to get a right angle on the base line is as follows:—First beg, borrow, or buy a chain tape (it's always handy), then at one end of your base line, at one of the 24 feet marks, drive in a stout peg level with the ground. Where the wire cuts the top of the peg, and right opposite the mark, hammer in a nail, which we'll call




To ensure straight planting, no matter what shape the orchard may be, it is absolutely essential to run the rows at right angles to this base line, all angular spaces can be filled up afterwards.

Nail B. Now measure from the nail along the wire exactly 6 ft., and drive in another peg with a nail, which we will call Nail A, in the top—the nails A and B should now be exactly 6 ft. apart.

From Nail B measure 8 feet out from the base line, judging as near as possible a right angle with the eye—there drive in a nail peg (Nail C) in same manner as before.

To form a perfect right angle on the base line the nail pegs A and C should be exactly 10 feet apart—near enough won't do.

Numerous measurings and adjustments of Nail peg C (the only peg that must be moved) may be necessary to get the measurements right, but care and exactness in this makes the rest easy. The measurements should then be Nail A to B, 6 feet; Nail B to C, 8 feet; Nail A to C, 10 feet. This accomplished, the angle A B C is a right angle.

Now do the same thing on the other end of the base line.

By "sighting" through nail pegs B and C, a sight peg (a stake with newspaper or white rag tied round the top is best) should be placed at a measured distance out from the base line. After doing the same from the second right angle made, the two sight pegs should be joined with the second wire, and if the sightings have been correct the pegs will be opposite 24 feet marks and you will have a perfect rectangle, both wires being parallel.

Now peg out along this second line and the wire can then be stretched between the two rows of pegs, and the pegging out quickly done.

Carefully inspect trees when they are received, and remove all broken or damaged roots—a sharp knife or secateurs being used for the purpose. If cut clean the wound will heal quickly, and a cluster of fibrous roots will issue from it. In addition to root pruning, it is also advisable to head back the trees if branches have been formed, or in the case of roots, to cut them back to 15 inches from the crown of the roots. Trees treated in the latter way are preferred mainly because of the facilities offered to form a well-set head.

The use of a planting board simplifies the work of planting when a block has previously been pegged out. A piece of softwood 3 ft. 6 in. x 4 in. x 1 in., cut as illustrated, is advised, and three "V" shaped niches cut, one in the centre and one in each end, so as to allow the planting board to be easily lifted away. After placing the board in position with the centre niche against the peg, insert pegs in the niches at each end. The board may now be lifted off, the centre peg removed, and the hole dug to receive the young tree. To plant, replace the board between the two pegs, and while placing the roots, hold the tree firmly into the "V" cut (which is its correct position). The roots should be placed so that they radiate in all directions.

When filling in the earth around the tree some fine soil may be added, a little at a time. The tree should be gradually lifted so as to ensure the roots all being embedded, until the correct depth of the tree in the ground is obtained; then make the soil firm by tramping well.

Should the weather be dry, it is necessary to water the trees in, with at least half a kero. tin per tree. The water should be poured in the hole and the soil gently shovelled in, the roots being kept in position during the operation.

Avoid deep planting. The depth the tree was in the ground of the nursery rows is a good guide.

## ABSORPTION OF AMMONIA BY SOILS.

It is important to consider what happens when an application of sulphate of ammonia is made to the soil. It is not absorbed by the plants as sulphate.

When first applied to the land, sulphate of ammonia, being readily soluble in water, is dissolved by the water which the soil contains. When used as a top dressing, especially on grassland, so that it does not come in close contact with the soil, it may sometimes remain undissolved until rain falls, and washes it in, but the soil generally contains enough water to dissolve sulphate, if it is in close contact with it.

In a state of solution, the sulphate of ammonia spreads all through the soil by the fact of the movement of the soil water in every direction. It is obvious that unless some change takes place in its condition, it may be carried away in the drainage. This change, however, soon takes place. Clay and humus have the power of fixing ammonia or absorbing it. No arable soil is without a certain proportion of one or both of these constituents. Hence ammonia supplied is seldom lost. In what way the ammonia is fixed is not clearly understood, but it is probable chiefly by chemical combination; though there is no doubt capillary action assists in retaining it.

The humus and clay of the soil, however, can only absorb ammonia when it is either in the free state—i.e., not combined with other substances—or in the form of carbonate. The ammonia of sulphate of ammonia must therefore be converted into one of these forms before it can be fixed. This is brought about by chemical action in the soil between the sulphate of ammonia and carbonate of lime, a substance which most soils contain. It will be remembered that sulphate of ammonia is a compound of ammonia and sulphuric acid, and that carbonate of lime (or chalk) consists of lime and carbonic acid. When the two substances come into contact in the soil an exchange takes place: the ammonia and carbonic acid combine to form carbonate of ammonia, and the lime and sulphuric acid combine to form sulphate of lime.

The carbonate of ammonia thus formed can be absorbed and "fixed" by the clay and humus, and it is then practically safe from loss of drainage, at least until nitrification takes place. It has been shown experimentally that without the presence of carbonate of lime, absorption of ammonia does not take place when it is aplied in the form of sulphate or any other compound of ammonia except the carbonate.

The requirements for the absorption of ammonia applied as sulphate may be summarised as follows:—

(1) The presence of enough carbonate of lime in the soil to convert the sulphate into the carbonate of ammonia.

(2) The presence of clay or humus to absorb the carbonate of ammonia thus formed.

It must not be understood that these actions are immediate or complete. It is a common mistake, and one which leads to a good deal of confusion, that chemical actions take place as readily and completely in the soil as in the beakers and test tubes of the laboratory. It is really quite otherwise. Some sulphate of ammonia may remain unchanged for a considerable time, though the supply of lime is plentiful. As the sulphate sinks lower and lower into the soil, most of it is gradually converted into carbonate, and it is then fixed; but probably many other actions take place, though generally on a small scale, and with quite unimportant results. The gradual change is very useful, for it is the means of keeping up a gradual supply of nitrogen to the growing plant. The subsequent process of nitrification, or change to the nitrate form, is also gradual, and the benefit of the application is spread out over the growing season. This gives sulphate of ammonia a decided superiority and preference as a source of nitrogen. It keeps the crop growing.

## AS TO THINKING RIGHT.

If a man thinks everyone is against him he will treat them so they will be. If he thinks everyone is a friend he will treat them nicely and they will be friends. If a man is suspicious of everyone they will be suspicious of him. You get just what is coming to you, good or bad—that's sure. If you keep on fighting, you'll get licked some time, good and plenty.—Buster Brown.

The tightest man in the world is the Scotchman who shot off a pistol outside his house on Christmas Eve and then came in and told the children that Santa Claus had committed suicide.

## Ohanez and Cornichon Vines.

### Methods of Pruning

THE OHANEZ variety of grape produces a strong vine, requiring to be grown on trellis. It gives much superfluous rank growth, and with the systems of pruning usually employed is inclined to be a shy cropper. Having noticed that a second crop was produced on laterals arising from the main cane (writes the Orchardist at Hawkesbury, N.S.W., Agricultural College, in the weekly notes issued by the N.S.W. Department of Agriculture), experimentation was carried out with these along the lines of summer topping, the discovery thereby being made that by using the lateral growths heavier crops were obtained.

The method adopted at Yanco (N.S.W.), in consequence of this discovery, was as follows:—The vines were headed to a wire 2 feet 6 inches from the ground, and a short permanent arm about 1 foot 6 inches long was formed on either side. From each arm two rods, or more, according to the age and strength of the vine, were taken and twisted round another wire about 15 inches to 18 inches above the lower one, and another cane from the end of each permanent arm was twisted round the lower wire. In each instance a spur of two eyes was left at the base of the cane, as well as one or two intermediate spurs, in order to insure a growth of canes for the following season's fruiting wood, the canes being renewed annually.

It is in selecting the canes to be used that the method advocated varies from that usually adopted. It is essential to use lateral canes coming off the main ones, and in order to force out these laterals the new growths must be thumb-pruned. This pinching back must be done early in the season, before the main canes are too long, in order to force out a lateral as near the base as possible, and to allow time for maturity This practice was followed for several years at Yanco Experiment Farm, with greatly improved results.

The Cornichon variety is naturally a fair-sized berry, and responds readily to rod-pruning. If pruned to spurs it sets a light crop of very large berries, but it is doubtful if the lighter crop and larger fruit is a better paying proposition than to prune for a heavier crop while still procuring a berry above the medium size of most grapes. Short or spur pruning may be the better system if applied on the heavy soils, or where irrigation is not practised.

This variety almost invariably produces a big crop, but in some seasons, for no apparent reason, it fails. It can then generally be forced to produce a second or late crop by summer topping of the current canes. It is necessary to do this work

**early in the season,**

in order that the lateral growths will be forced out in time to produce and mature this late crop. The latter is inferior to the main crop in quality, colour, and sugar content, but owing to its lateness it generally realises payable prices.

It is unlikely that this method of getting a late crop would apply to the coastal or tableland districts, the autumn being too short to allow time for ripening. The forcing of the production of the second crop does not seem to weaken the vine or to interfere with the following season's crop.

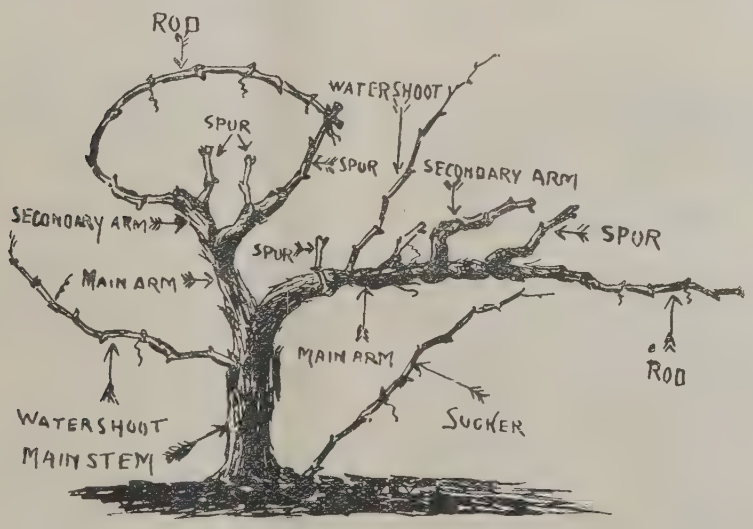



Diagram of the parts of a Grape Vine.

### RE-TRELLISING VINES.

Regarding the work of re-trellising, Mr. J. Boehm, of Ramco, South Australia, states that during the last winter he had had the experience of renewing old Currants. When the work was commenced, he intended to pull out the old wires, which were three to the row, but when all the arms were released, it was impossible to shift the wires. To clean the wires of all the old string and rubbish would have entailed a considerable amount of work, and he decided to release the wires by splitting the old posts. That did not improve matters to any extent, because the wires could not be put pack into the posts without being cleaned.

To overcome the difficulty, he decided to put the wires on one side of the posts. Holes were bored in each post at the required height, and the wires strained and tied to the posts with short pieces of wire. If at any time a post broke or rotted, and had to be replaced, it was a very simple matter to untie the wire, put in a new post, and tie the wire up again. He had also put the wires in a new trellis on the side of the posts, and it had proved satisfactory in every way.

### Apples in Germany.

Messrs. Ph. Astheimer and Sohn, fruit brokers, Hamburg, Germany, write under date 20th March:—"With regard to prospects for the coming season we feel optimistic for any arrivals of good quality and in sound condition. While the trade in American boxed apples was rather slow here in October and early November on account of an abundant crop in our own Continent, the situation changed by the end of November, and since we have been obtaining very good prices, mostly from 16/ to 18/ for regular arrivals of American boxed apples.

We, however, want to impress upon all Australasian shippers to ship for Hamburg only good qualities of medium sizes, preferably Jonathans in the beginning and then Dunn's Seedlings (Munroes), Cleopatras and other good keeping varieties.

"The Australasian Apples which are being consumed on the European continent are not for everybody, but for a limited class of people that have got some money left, and who, of course, care only for the best stock."

### ENEMIES.

Who steals my purse steals trash; 'tis
something, nothing;
'Twas mine, 'tis his, and has been
slave to thousands;
But he that filches from me my good
name
Robs me of that which not enriches
him
And makes me poor indeed.

—Shakespeare ("Othello").



# THE "Sunraysed" Courier



**FEDERATED DRIED FRUITS EXPORT CONTROL BOARD.**

**Commercial Representatives:**
A. F. Bell, E. S. Whitehead.
**Government Nominee:**
W. C. Thomas (Chairman).
**Growers' Representatives:**
J. J. S. Scouler, Red Cliffs, Vic.
H. D. Howie, Renmark, S. Aust.
A. L. Johnston, Mildura, Vic.
A. Yeates, Millendon, W.A.
Acting Secretary—E. J. Mulvaney.

**VICTORIAN DRIED FRUITS BOARD.**
**Commercial Representative:**
J. M. Balfour (Chairman).
**Government Nominee:**
E. Meeking.
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E. T. Henderson, Mildura.
A. Lochhead, Irymple.
Acting Secretary—J. M. Allen.

**SOUTH AUSTRALIAN DRIED FRUITS BOARD.**
**Commercial Representative:**
L. N. Salter (Chairman).
**Government Nominee:**
G. A. W. Pope.
**Growers' Representatives:**
H. D. Howie, Renmark.
H. G. Evans, Renmark.
H. Kay, McLaren Vale.
**Secretary:**
W. N. Twiss.

**AUSTRALIAN DRIED FRUITS ASSOCIATION.**

**Board of Management.**
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T. C. Rawlings, Mildura.
J. B. Murdoch, Waikerie.
J. Gent, Nyah.
G. Kitchen-Kerr, Red Cliffs.
Australian General Secretary—W. N. Sumner.
South Australian Secretary — Stan. Oldham.
**London Manager:** W. P. Caro.

INTERESTING items of news are to hand from the Australian "Sunraysed" Headquarters. The Secretary of the Australian Dried Fruit Association, Mr. W. N. Sumner, advises thus:—

## "SUNRAYSED" FRUITS IN CANADA.

It is some time since the Association first negotiated with the Ford organisation in Ontario to exploit the possibilities in the large cities of Canada, of markets for our dried fruits.

A very representative batch of exhibits was sent to the Ford headquarters, from whence they were distributed to Ford agents in rotation, until they had been exhibited and advertised in twenty-nine cities throughout Canada, over a period of six months. The result of this thoroughly organised publicity is that our fruits have become widely known amongst all classes of the trade, and answers to the questionaires sent out in each city are still coming in freely from wholesalers and retailers.

One of the largest biscuit manufacturers in Canada writes that he is anxious to get our fruit which, for color and fleshiness, is superior to Californian.

He buys by the carload (truck load) and hoped that he would be able to get into touch with some of our agents with a view to doing business. Many of the big retailers have endorsed the questionaire, and from their remarks it can be gathered that the "trade within the Empire" spirit is strong in Canada. It is to be sincerely hoped that this spirit will be the directing influence in the treaty negotiations which are still "hanging fire," and that the treaty will be ratified at an early date, so that a start may be made to capture some of the trade with our sister Dominion.

* * *

## OUR LONDON LETTER.

Writing from Australia House, Mr. R. L. Barnes, in his letter of April 16th, states:—"Wembley will soon be in full swing, and the alterations we are making, after consultations with Mr. Lee Neil, will make our dioramas even more striking than they were last year. Great improvements are in train everywhere, and the orchard and vineyard scenes with real Grapes upon real vines, and the trays of fruit drying 'in the sun' of a powerful electric arc lamp in the foreground, will have powerful arresting power.

"We have not been backward in our requests for concessions or help with a view of making the Dried Fruits section a success, both from a sales as well as the mere exhibit point of view.

"Our final arrangements will include every practical method of advertising appeal, and with every sense, touch, taste, sight, smell and hearing being catered for, the dried fruits should be irresistible.

"The exhibit will include such innovations as cooking demonstrations by a woman demonstrator, who will show the many ways that dried fruits may be prepared for the table from the most appetising and nourishing recipes— recipe books will, of course, be distributed by the thousand at the demonstrations.

"Lectures will accompany the cooking and the food and medicinal values pointed out, and the cleanliness of processing and packing methods emphasised by comparison. Permission has also been obtained for sales to be made from the diorama of the vineyard, a concession that will mean a big increase in our sales of cartonned fruit.

## EMPIRE SHOPPING WEEK.

"During this period we will keep our 'Sunraysed' brand well before the public through the medium of window displays. A number of the biggest stores are making windows available in prominent positions, and the results will without doubt be good.

"Empire products are being pushed so strenuously and persistently now that many of the stores are opening special departments of Empire products. All these signs indicate that the 'Trade Within the Empire' feeling is running very high, and will react to the growers' benefit ultimately.

## 50,000 'SCHOOL-PAPER' SUPPLEMENTS.

### Educative Publicity.

"Towards the end of last year these illustrated supplements came to hand and proved most valuable as educative mediums. As they were written for school children of certain Australian grades, they were distributed to various schools and organisations throughout Great Britain, where it was considered they would be of most value.

"The information on the industry and Raisins was greatly appreciated, and in acknowledging them, the schools commented most favorably on their value as Empire education.

## SOUVENIR BOXES.

"The splendid success of this advertising medium at the last Wembley Exhibition has influenced the decision to renew the scheme this year.

"The tree fruits required for making up these attractive boxes have already been secured, and the packing and delivery arrangements are to be on the same lines as last year. Orders will be taken in Australia, London and Wembley."

## DRIED FRUITS AND HEALTH.

### Display at Prahran.

Next October, at the Prahran Town Hall, the annual "Herald" Health Exhibition will be held. The "Sun-Raysed" brand will be represented in an attractively dressed stall, and will, no doubt, gain more attention than it did at the same exhibition last year.

The principal reason why the Association is taking advantage of a "Health" exhibition to bring Raisins before the public, is because Raisins stand in the unique position of being one of the few foods left to civilised man which are prepared for consumption in such a way that neither their food value nor their medicinal properties are impaired in any way.

The value of Raisins as a health food, considered from the viewpoint of the physician, is given an especially strong endorsement in a special article which appears in the February issue of the "Medical Review of Reviews," one of the prominent medical papers of the United States. This article reads in part as follows:—

"Raisins are dried Grapes and contain a large amount of sugar. They are cured in the sun and up until the last decade were chiefly used for desserts and in cooking. The fortunate children of to-day eat a few Raisins for recess instead of so much candy and the mother, careful for the health of her flock, freely displays the Raisin box instead of hiding it for future use as did our grandmothers.

"In ancient and medieval days and in the Europe of to-day the juice of the Grape was that which was most assiduously taken care of, for from it came the wines that have had their names sung into history.

"But the dried Grape, the Raisin, contains certain wholesome properties foreign to wine and is free from its evil after-effects. All men agree that the Raisin, when perfectly ripe and properly cured, is of value as a medicine and a nutriment. The very fresh Raisin is especially recommended for it is easly digested. The cream of tartar in the Raisin is an excellent laxative, while the protein, in which the fruit is rich, produces force and strength and the ash is valuable to the well-being of hair, bones, nails, eyes and teeth.

"On the whole, Raisins are builders of tissue and excellent food. Many instances have been recorded of persons having lived for a length of time on this food alone, these ranging from one month to four months. Physicians frequently advise a 'Raisin' treatment for certain stubborn ailments. In these cases the patient lives on a sole diet of this food for a specific period."

## NEW SEASON'S APRICOTS.

### London Sales.

Tree fruit growers will be pleased to learn that the bulk sales of Apricots in London have realised good prices.

They are as follows:—2 Crown, from 110/-; 3 Crown, from 127/6; 4 Crown, up to 135/- per cwt. duty paid.

## LONDON SALES OF VINE FRUITS.

### Fair Average Price.

The Chairman of the Dried Fruits Export Control Board (Mr. W. C. F. Thomas) has issued a statement that cable advice had been received from the Board's London Agency, giving the sales of new season's Australian Currants and Sultanas from May 14 to May 21.

The quantities and prices are as follows:—

Currants, 218 boxes, at 50/- a cwt.; Sultanas, 658, at 66/-; 501, at 67/-; 990, at 68/-; 279, at 69/-; 471, at 70/-; 56, at 71/-; 392, at 72/-; 86, at 73/-; 99, at 75/-; average price, 68/-.

The Board was also advised that the total quantity of old season's fruit in the hands of agents was under 150 tons.

The prices received for fruit up-to-date are by no means "remarkably good." It is the very fervent hope of every grower that they will stay round about where they are at present, and that the quality of the Sultanas will remain up to the present standard.

The average price given in the London Agency's cable as 68/- per cwt. for roughly 88 tons of Sultanas is an indication that only the highest grades are worth consideration on this market.

It has been many times publicly stated by those who are intimately associated with the marketing of these fruits that at least 65/- per cwt. must be obtained in London to return the grower on the Murray his cost of production.

The prices obtained so far, on this figure. will barely cover cost of production, and it will be an anxious time for growers in the next few months waiting for information as to which way the average price is going—up or down.

If, on the arrival of the new season's Smyrna fruit, the prices drop to any considerable extent, the outlook for many growers will be a serious one indeed.

## Australian Dried Fruits and British Market.

With the change of Government in Great Britain, and the revival of the preference proposals in respect of Empire foodstuffs, considerable attention is now being given in Australia to the dried fruits industry. In these circumstances the following facts and figures relating to the world's dried fruits industry may be of interest.

The production of Raisins is carried on in comparatively few countries. According to the latest official records of producing countries, the United States is the foremost producer with 4,196,000 cwt., Spain following with 1,187,000 cwt., Turkey (Smyrna) with 720,000 cwt., and Australia with 373,000 cwt., Greece with 240,000 cwt., and South Africa with 140,000 cwt., the quantity exported from the United States being 844,000 cwt., from Spain 528,000 cwt., from Turkey 550,000 cwt., from Australia 234,000 cwt., and from Greece 200,000 cwt.

With regard to currants, Greece is the chief producer with 2,100,000 cwt., exporting 1,748,000 cwt., while the only other important source of supply is Australia with 210,000 cwt., and a total export of 147,000 cwt.

It will be seen from this that Greece practically supplies the world markets with currants.

The principal countries importing raisins and currants are the United Kingdom with 1,170,000 cwt. and 1,043,000 cwt., respectively; Canada, 346,000 cwt. and 50,000 cwt.; and the United States, 152,000 cwt. and 191,000 cwt.

Australia's exports of raisins and currants in 1923-24 were as follows, the previous year's figures being in parentheses: — United Kingdom, 216,731 cwt. (142,129 cwt.) and 124,680 cwt. (100,264 cwt.), respectively; New Zealand, 14,880 cwt. (27,162 cwt.) and 9903 cwt (15,368 cwt.); Union of South Africa, 513 cwt. (638 cwt.) and 6889 cwt. (7686 cwt.); Netherlands East Indies 565 cwt. (709 cwt.) and 1455 cwt (1416 cwt.). The total export of raisins from the Commonwealth amounted in 1923-24 to 234,359 cwt. (171,787 cwt.), and of currants 146,951 cwt. (129,489 cwt.). —Chamber of Commerce Journal.




Matters of current interest are discussed in these columns. Readers are invited to express their views on all phases of the fruit industry—production, research, cultural matters, marketing, transportation, organisation, legislation, or on any other subject.

All letters should be signed, though if it is desired, the name need not be published.

### High Prices for Exported Apples.

THE PRICES received in England and on the Continent for Apples exported this season from Australia are eminently satisfactory to the producers here. Whilst these prices are exceptionally welcome to Australian Apple growers, coming as they do after a series of "lean" years, it must be obvious that the retail prices in England will be high—probably 9d per lb. This necessarily limits consumption. The ideal is a large export trade at payable prices, thus relieving the markets here of a surplus, building up a profitable export business at prices within the reach of the masses.

Another satisfactory feature is the fact that the bulk of the fruit arriving, according to cabled advices to date, is sound, not having suffered deterioration on the voyage. Credit must be given to the shipping companies and the engineers for this success. In this connection the influence of the cold storage scientists who recently visited Australia must be a very important factor, for in addition to studying such specific problems as Brownheart and Bitterpit, the general broad question of refrigerated fruit transport has been considered, with the result that notable additions have been made to the available knowledge on that subject.

It is to be hoped that this good work of scientific investigation will be taken up and a permanent staff appointed to do the necessary work.

* * *

### Organisation and Co-operation.

WIDELY DIVERGENT views are held by many earnest men regarding the matter of organising the fruit industry. Some believe in legislative enactments, and go "baldheaded" to have laws passed and regulations made. Others believe that education is better than legislation, and there are many who believe that the less the law touches the industry the better for all concerned.

Regarding the subject of organisation and co-operation, let us hear what President Coolidge had to say at a conference on this subject in January last:—

While American agriculture can best be placed on a stable and secure basis by the broadest and soundest possible programme of co-operative marketing, co-operation cannot be expected to perform miracles.

To be successful, it must begin in small units that train its users to think co-operatively. It is a process that requires time and may meet failure due to over-ambitious beginnings or too eager expectations. While it records more failures than successes, other businesses have done the same, and there is an impressive showing of successes.

Co-operation is a demonstrated principle. The co-operative organisation, which establishes grades and standards, encourages good and eliminates poor varieties, increases production efficiency, provides a unified product adapted to its market, organises its distribution, creates confidence in its products and its methods, will, with wise leadership, succeed.

* * *

Dr. Earle Page, the Federal Treasurer, speaking at Alexandra, Vic., at the end of May, said that in America, grape fruit, a kind of specially-grown shaddock or citrus fruit, was universally used by poor and rich alike as a breakfast food. Nobody thought he had started a day right unless he had eaten one.

If the energy and effort wasted at present by Australian fruitgrowers in going to the Government for advantages were put into organisation for co-operation and co-ordination, the whole industry could be put on its feet without being beholden to anyone. Ninety per cent. of agitating effort to bring pressure to bear on the Government did not help the position one iota..

### Australian Conference of Fruitgrowers.

Mr. J. Donaldson, of Paradise, S. Aust., ex-President of the Australian Conference of Fruitgrowers, writes appreciatively of the good work accomplished at previous Interstate Conferences, and opposing any suggestion that the Association should be wound up. He continues, "I believe that the formation of the Federal Fruit Council is the reason of the interest being taken from our conference. As new men come into power in the Commonwealth Government the Federal Fruit Council will probably disband gradually, leaving the fruitgrowers in a worse plight than before.

It would be a thousand pities if we lost the annual session of the Australian Conference of Fruitgrowers."

* * *

### The Sugar Position.

We acknowledge a lengthy letter from Mr. P. Airey, Publicity Officer of the Committee of Direction of Fruit Marketing, defending the present sugar policy, and advocating a fruitgrowers' organisation on the lines of the Queensland Cane Prices Board.

* * *

### Answers to Correspondents.

**Cherry Aphis.**—A reader at Young, N.S.W., asks the following question:—"Could you tell me what is the most effective spray to kill Black Aphis on cherry trees? This disease has only appeared in this district during the current year, and unless we can find an effective spray it is going to mean a lot of trouble."

**Answer** (by C. French, Jr., Victorian Government Entomologist):—Spray with Red Oil (1 in 20) when the buds are beginning to swell in the Spring, to kill the eggs. This spray should be very thorough, as the eggs are found in cracks, crevices, etc.

Subsequently spray with Nicotine Sulphate or Black Leaf 40 (1 pint in 80-100 gallons water with 3 lb. soap) whenever the appearance of the Aphis on the leaves indicates the necessity.

Answer by Mr. Geo. Valder, Under Secretary and Director N.S.W. Dept. of Agriculture:—The Cherry Aphis has only recently given trouble in this State, and, consequently, very little experimental work in its control has been carried out. It is believed, however, it must be dealt with in a similar manner to the Green Peach Aphis, that is, spraying with one of the spray oils at winter strength before the tree starts into activity in the Spring.

* * *

### CODLIN MOTH CONTROL

#### What is the Correct Spraying Strength.

A South Australian subscriber writes:—

I would like to draw attention to a matter that is exercising the minds of some of our growers, in the hope that perhaps through the columns of your valuable paper, we may gain the views and experiences of growers from other States. The impression

seems to be growing that the poor results often obtained in the control of Codlin moth are due to the weakness of the mixture used, and that better results are obtained by considerably increasing the amount of Arsenate of Lead recommended by the manufacturers.

It has always been my opinion that to unduly increase the strength of arsenate would tend to defeat the object in view, as insects, we know, have a discriminating sense where their natural food is concerned, and in this case if the fruits were so thickly coated with arsenate as to interfere with this natural selection, the grub would simply crawl around until he found some part not so covered and would eat his way in there, leaving the poisoned parts alone, and we know how impossible it is to absolutely cover every portion of an apple or pear with poison.

I would be glad to receive replies to the following questions:—

(1) What is the general opinion of growers on the question of increasing the strength of arsenate of lead over and above the strength recommended by manufacturers for the control of Codlin moth?

(2) Have any definite tests been made, and is there any reliable data available?

* * *

### Grader for Gooseberry.

We also acknowledge receipt of the following query from one of our readers: — "Can any experienced Gooseberry grower say what is the best type of grader to use—one that will both grade and clean for preference?" Enquiries are being instituted in this connection.

* * *

## CANADIAN FRUIT SITUATION.

### Over Production and Low Prices.

### Conditions Gradually Becoming Normal.

INTERESTING INFORMATION is to hand relative to fruit conditions in Canada, in a letter (16/3/25/) to the "Fruit World" from Messrs. E. D. Smith and Sons, fruit growers and shippers, Winona, Ontario, Canada. Our friends write:—

In regard to the fruit situation here, which you ask about in your letter, the fruit growing industry has been very depressed here for the last four years, owing to a variety of causes, chiefly over-production.

Further, our Customs Duties against the United States importations are very low. They are specific duties which were levied many years ago, when cost of production was low, and they have never been changed. The duties imposed upon Plums, for instance, and Pears, are ½ c. a lb.; on Peaches 1 c. per lb.

As a consequence our country is flooded with United States' fruit before our own crops are quite ready, as they lie to the south of us. This prevents our fruit growers from getting full value for their earliest crops.

Moreover, our fruit stores, where fruit is retailed by the pound, are chiefly filled with fruit grown in the irrigated regions of the Pacific Coast, where fruit is grown in a rainless climate, and keeps much longer than fruit grown in a comparatively moist climate like ours. Although our fruit is much more luscious and juicy, yet this Pacific Coast fruit keeps much longer. The retailer is not bothered with having to throw out rotten fruit in a day or two after he gets the package, as he might do in hot weather with our fruit, and so, although the price may be twice as high as ours, he generally stocks up with this imported fruit, and as the duty is merely nominal, he is able to get it at very moderate prices.

Here in this southern part of the Province of Ontario, fruit can be grown in great profusion, that is, all the fruits natural to the north temperate zone.

**Peaches** have been so cheap for three years that growers have made no money, in fact, have lost money; on Plums even to a greater extent. The average price for Plums during the past three years has been about 1 c. per lb. net to the grower. At this price he cannot make it pay. For Peaches the price has been on an average of about 2½ c. per lb., for the best quality of peaches.

**Bartlett Pears**, which is the name under which the Williams Pear goes in this country, have brought an average of about 2 c. per lb. net. This is a fairly profitable price, if it were not for the blight which damages the trees so frequently, and which seems to be uncontrollable.

**Cherries** are grown here in such profusion that they have become so cheap that many orchards of sour Cherries are being taken up. Sweet Cherries, called English Cherries, are still grown with some profit, but are being planted very heavily.

Our **Grapes** are those varieties grown in this climate east of the Rocky Mountains, to the Atlantic Coast. They are not suitable for making raisins, but are entirely for sale for eating out of hand as fresh from the vine, or for making wine. Prices of Grapes have been quite profitable for a number of years since Prohibition went into effect in the United States. Strange to say, the result was a tremendously increased demand for grapes for wine, which boosted the price up two or three times what it formerly was, and to such a height that we were able to ship grapes into the United States, and pay the duty of ¾ c. a lb., but the price has been sagging back, so that during the past year very few grapes, if any, were shipped over there, but our own country absorbed the crop, which was a moderate one, about 15,000 tons, and at fairly profitable figures.



NEW APPLE ("Elsie Grant").

*A cross between Yates and Rokewood, raised by Mr. T. H. Grant, Beaconsfield (Vic.)*

## INSECT PESTS OF THE ORCHARD

### JUNE.

(By Chas. French, Jr., Victorian Government Entomologist.)

### The Painted "Apple" Moth.

The larva of this moth is still to be found on Apple and other fruit trees, and will, if not destroyed, cause damage to the young fruit spurs. It is a fairly common insect on Cherry trees, and in some districts does much harm to the young buds. It is a native insect, and like many others, has left its native food trees and become another insect pest to the orchards. It is certainly one of the worst native pests of fruit trees generally. It is advisable to give the trees a spraying with arsenate of lead 1 in 25, should these insects be noticed on them.

COVENT GARDEN, LONDON
**Ridley, Houlding**
& CO.,
**Large Receivers of Australian Fruits.**
Solicit Consignments of
**Apples, Pears, &c.,**
Best market prices and prompt account sales returned.
Correspondence invited.
Representative in Victoria
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### The Cherry Aphis.

This is absolutely the worst pest of Cherry trees, and is spreading rapidly in Victoria. The Aphids attack the young growth, causing same to turn black. If measures are not taken to destroy these insects the trees will eventually die. Lime sulphur or red oil sprayed on the trees when dormant would destroy the eggs. Red Oil (1 in 20) sprayed in Spring, and Nicotine Sulphate (1 pint to 100 gallons water) has given excellent results.

## SCALE INSECTS.

### Apple, Mussel, San Jose and Other Scales.

During the winter months, after the trees have shed their foliage or have been pruned, it is advisable to spray with red oil or lime sulphur. All prunings should be destroyed immediately. It is advisable to have an iron tank, in which there is a fire, placed on a sledge, and all prunings should be dropped into it as soon as they are cut. The ashes from the cuttings could then be used in the orchard.

### Peach Aphids.

It is advisable to spray Peach trees at once with red oil or lime sulphur to destroy eggs of these insects. The eggs are very minute and shining black in colour, and are usually found on fruit spurs.

### Codlin Moth.

As the larvae of these moths have now pupated, or are hiding under the bark of Apple, Pear, and other fruit trees, all loose bark should be scraped off and the grubs and pupæ destroyed. A good plan is to place a piece of old blanket around the foot of the tree when scraping the bark off; this will prevent the grubs from escaping.

All the crevices in packing houses should be treated with kerosene to destroy the hybernating insects.

Secondhand cases should also be treated by dipping same in boiling water.

All hessian bandages should be removed from trees, and also treated by the same process.

## WOOLLY APHIS.

Black Leaf 40 and Red Oil are, according to the South Aust. Horticultural Instructor (Mr. Geo. Quinn), both reasonably effective against Woolly Aphides. The oil may be used strongly in the dormant season of the Apple trees, and the tobacco extract when they are in foliage. The Department (states the South Aust. "Journal of Agriculture") has found the "spray pistol" or "spray gun" nozzles most suitable means of distribution, as the spray may be concentrated with great force on the patches of blight. After all, these are only palliatives, and depend for their value on repeated applications according to the season. If he were confined to the use of one of them, Mr. Quinn says, he would prefer the tobacco compound.

**"WHY HAVE INDIGESTION?"**

Thousands of people in Australia to-day have decided that Indigestion is not only unnatural but unnecessary. A poor digestion or weak stomach demands just the little assistance which a proper combination of herbal juices will supply. A.M.S. is a very well established remedy, which has aided many chronic dyspeptics to eat well, and have the eager appetite of a child. A little dose every day until the stomach is strong and healthy should be made part of the daily dietary. Take it regularly till you can do without it altogether. At all chemists 3/-, or by post 3/6 per bottle from T. A. Dickson, Chemist, Geelong, Vic.

## TO CONTROL LEMON DECAY.

A correspondent to the "California Citrograph" advocates fumigation with formaldehyde gas to control decay in Lemons. He states:—

Formaldehyde gas does not affect the colour, nor the taste of fruit, is not poisonous and, therefore, could be tried with lemons in California. We would advise, however, to sterilise the lemons before shipping, either before or after wrapping, with the said concentration of formaldehyde gas for 4-6 hours or more.

Whenever desired formaldehyde can be added to the water in the washing machine, about one pound to 40 gallons of water, but this treatment alone could not be relied upon, and a final fumigation in order to sterilise the surface of the fruit should be carried out.

Along this line a radical control of the decay in lemons may be obtained.

**TASMANIA**
We are the Leading Australian Firm of
FRESH FRUIT EXPORTERS, JAM MANUFACTURERS (IXL Brand), FRUIT CANNERS, HOP FACTORS (owning the largest cool stores for this purpose in the Commonwealth).
Supplies of Corrugated Strawboard, Genuine Sulphite Paper, Nails and best Packing Materials available at all times.
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Agents for—
Federal Steam Navigation Co. Ltd., Scottish Shire Line of Steamers, Osaka Shosen Kaisha, London Assurance Corporation.
Correspondence Invited.
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HOBART

## SOUTH AUSTRALIA.

Officers of the Central Branch of the South Australian Fruitgrowers' and Market Gardeners' Association were recently elected as follows:—President, Mr. R. E. Townsend; Vice-President, Mr. J. Mitchell; Auditor, Mr. J. Mitchell; Executive Delegates, Messrs. R. Hunter (Montacute), J. Mitchell (Welland), P. Tilley and F. Stanford (Fulham), R. H. Lewis (Scott's Creek), J. Turner (Blackwood), W. McKerlie (Montacute), C. W. Giles (Norton's Summit), A. Petersen (Crafers), and F. Staniford, M.P. (Summertown).

A man bought a suit from a Jewish clothier for thirty shillings. When he opened the suit at home he discovered it was alive with moths.

He took it back to the Jew and said: "I can't take this suit, it's full of moths."

To which the Jew replied: "Well, vat do you want for thirty shillings? Mocking-birds?"

# Queensland

## Orchard Notes for June.

### The Coastal Districts.

Great care must be exercised in the handling, grading, packing, and marketing of the **citrus** crops. As the weather gets cooler the losses due to the ravages of fruit flies decrease, as these insects cannot stand cold weather, and consequently there is only an odd one about.

The absence of flies does not, however, permit of any relaxation in the care that must be taken with the fruit, even though there may be many less injured fruit, owing to the absence of fruit fly puncture, as there is always a percentage of damaged fruit which is liable to speck, which must be picked out from all consignments before they are sent to the Southern States, if a satisfactory return is to be expected (states the Queensland "Journal of Agriculture").

If the weather is dry, citrus orchards must be kept in a good state of tilth, otherwise the trees may get a setback.

Old worn-out trees can be dug out and burnt; be sure, however, to see that they are worn out, as many an old and apparently useless tree can be brought round and made to bear good crops, provided the trunk and main roots are still sound, even though the top of the tree is more or less dead. The whole of the top of the tree should be cut off and only the trunk and such sound main limbs left as are required to make a new head. The earth should be taken away from around the collar of the tree, and the main roots exposed, any dead roots being cut away and removed.

The whole of the tree above ground and the main roots should then be dressed with a strong lime sulphur wash, or Bordeaux paste. The main roots should be exposed for some time, not opened up and filled in at once.

Young orchards can be set out now, provided the ground is in good order. Don't make the mistake of planting the trees in improperly prepared land —it is far better to wait till the land is ready, and you can rest assured it will pay to do so in the long run.

When **planting**, see that the centre of the hole is slightly higher than the sides, so that the roots, when spread out, will have a downward, not an upward, tendency; set the tree at as nearly as possible the same depth as it was when growing in the nursery, cut off all broken or bruised roots, and spread those that remain evenly, and cover them with fine top soil. If the land is dry, the tree should then be given a good watering, and when the water has soaked in, the hole can be filled up with dry soil. This is far better than watering the tree after the soil has been placed round it and the hole filled up.

**Custard Apples** will be ripening more slowly as the nights get colder, and if the weather becomes unduly cold, or if immature fruit is sent South, the fruit is apt to turn black and be of no value. This can easily be overcome by subjecting the fruit to artificial heat, as is done in the case of Bananas during the cooler part of the year, when it will ripen up properly and develop its flavour. Grade Custard Apples carefully, and pack in cases holding a single layer of fruit only for the Southern markets.

**Pineapples**, when at all likely to be injured by frost, should be protected by a thin covering of bush hay, or similar material. The plantation should be kept well worked and free from weeds, and slow-acting manure, such as bondust or island phosphates, can be applied now. Lime can also be applied when necessary. The fruit takes longer to mature at this time of the year, consequently it can be allowed to remain on the plant till partly coloured before gathering for the Southern markets, or can be fully coloured for local use.

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(GERMANY)
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Fruit Brokers & Auctioneers
Established 1835
FINEST TABLE APPLES
A SPECIALTY
Sale Room "Fruchthof"
Consignment of Apples Solicited
Best market values and
most favorable conditions
Cash advances made if desired

**Banana** plantations must be kept worked and free from weeds, especially if the weather is dry, as a severe check to the plants now means small fruit later on. Bananas should be allowed to become full before the fruit is cut, as they will carry all right at this time of the year; in fact, there is more danger of their being injured by cold when passing through New England by train than there is of their ripening up too quickly.

Pay particular attention to the handling, grading, and packing of the fruit. It will pay you to do so.

Land intended for planting with Bananas or Pineapples during the spring should be got ready now.

**Strawberries** require constant attention, and unless there is a regular and abundant rainfall they should be watered regularly. In fact, in normal seasons, an adequate supply of water is essential, as the plants soon suffer from dry weather, or strong, cold westerly winds.

Where not already done, **vineyards** should be cleaned up ready for pruning.

### Granite Belt, Southern and Central Tablelands.

All kinds of deciduous fruit trees are now ready for pruning, and this is the principal work of the month in the orchards of the Granite Belt Area. Don't be frightened to thin out young trees properly, or to cut back hard—many good trees are ruined by insufficient or bad pruning during the first three years. In old orchards do not have too much bearing wood; cut out severely, especially in the case of Peaches, or you are likely to get a quantity of small unsaleable fruit.

Planting can start now, where the land is ready and the trees are to hand, as early planted trees become well established before spring and thus get a good start. Be very careful what you plant. Stick to varieties of proved merit, and few at that, and give so-called novelties and inferior sorts a wide berth. Take the advice of old growers, and do not waste time experimenting with sorts that have probably been tested in the district and turned down years ago. When land is intended for planting this season, see that it is well prepared and well sweetened before the trees are put in, as young trees seldom make a good start when planted in sour and badly prepared land.

Slowly acting manures—such as bonedust, meatworks manure, or island phosphates—can be applied now, as they are not liable to be washed out of the soil, and they will be available for the use of the trees when they start growth in spring. Lime can also be applied where required. Badly-drained land should be attended to, as no fruit trees will thrive with stagnant water lying round their roots.

On the Downs and Tableland all kinds of fruit trees can be pruned now, and vines can be pruned also in any district where there is no danger from late frosts, and where this can be done the prunings should be gathered and burnt and the vineyard ploughed up and well worked to reduce the soil to a good state of tilth, so that should rain come it will absorb all that falls, and the moisture can be kept in the soil by cultivation subsequently.

Citrus fruits will be at their best in the Western districts. The trees should be watered if they show signs of distress, otherwise all that is necessary is to keep the surface of the land well worked. All main-crop Lemons should be cut by this time,

(*continued on Page 237*)

# Tasmania.

**Export : Black Spot Control.**

THE HARVESTING of the Tasmanian Apple and Pear crop is now completed. During the greater part of the season fine weather has been experienced, allowing the necessary picking operations to be conducted satisfactorily. At the end of May several mild frosts occurred in the southern districts, bringing the foliage off the early stone fruits.

**Pruning** has already commenced amongst Apricot areas, and preparations are being made to carry out the necessary manurial applications for the forthcoming crops next season.

The shipment of fruit to overseas markets was brought to a close by the T.S. Hobson's Bay, which departed for Hull on May 30th, with approximately 35,000 cases of fruit.

'Phone Central 8479

F. W. Vear

*Fruit Importer and Exporter*

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**Solicits consignments of APPLES, ORANGES, BANANAS, PINES and all other fruits.**

**Account sales with cheque daily.**

It is evident that the early estimates of crops were over the actual production. Difficulty was experienced in obtaining the allotments for the last few boats, and in several cases departures were made without the full quota of consignments. However, the season may be looked upon as satisfactory on the whole, the total overseas export reaching approximately one and a quarter million bushels.

For the first time during recent years the early consignments have not come into competition with American fruit, and prices have averaged good payable returns to the grower.

Reports which are to hand from Sydney and Brisbane show that the market has considerably appreciated. Satisfactory prices are being realised for consignments of both Pears and Apples, with the promise of increased values as the season progresses.

### Fruit Carriage Investigation.

Mr. A. J. Smith, the Cambridge Scientist who is investigating the different problems connected with overseas fruit transport, departed in the P. and O. Branch vessel Ballarat on May 13th, for London, via South Africa.

Since the advent of "Brownheart" and allied troubles, a number of very efficient instruments have been evolved for testing and recording temperatures and atmospheres of ships' holds. In conjunction with Mr. Smith's assistant (Mr. J. C. Poole) a number of vessels have been fitted with apparatus and very complete data should be available in the elucidation of the problems which are experienced.

### Conference of Ministers of Agriculture.

It is generally felt that the conference which recently met in Hobart has smoothed a lot of the difficulties which were being encountered in the intercourse of trade between States.

**Besides recommending the elimination of the useless "Guarantee brand" which takes up a lot of space upon cases, the members of the fruit committee arrived at a more reasonable limitation of blemishes upon fruit exported overseas.**

The latter resolution will go forward to the Federal authorities, and it is to be hoped that the recommendation of the State departments will be given effect to.

**Throughout the conference a general desire was evinced for the States to retain full control of the marketing, production and forwarding of their fruit and fruit products.**

The responsibility for the educational work necessary in the different measures aimed at, to improve these industries lies with the growers and State departmental officers, who are fully conversant with the conditions ruling in their particular districts. Better work will be accomplished by a realisation of this factor than in the introduction of schemes which are aimed at to centralise the control in an inexperienced body which does not come into actual contact with the varied influences which embrace production within the Commonwealth.

### Black Spot Control.

The demonstration plots which have been conducted under the supervision of the officers of the Fruit Division this season to show the best means of combating black spot infection have evoked much interest in growers throughout the State.

The results make evident the importance of the periods of application in the successful control of the disease and the necessity of applying an early spray to prevent the first stages of infection. If spraying is delayed until the "pink" period, the disease is already established on the foliage and embryo fruits, and it becomes a matter of cure rather than prevention. **The best results were obtained by an application of Bordeaux mixture (delayed dormant, 6-4-40, followed by a pink application, 4-4-40). This gave 62 per cent. absolutely clean fruit, plus 29 per cent. which could be termed marketable within the provisions of the Interstate export regulations, against 3 per cent. clean and 25 per cent. marketable in the check rows untreated.**

### Cygnet Fruit Show.

This season has been remarkable for the number of fruit shows which have been rejuvenated in the Huon districts. Successful functions have been held at both Huonville and Geeveston, whilst on May 13th and 14th the growers of Cygnet staged one of the best exhibits of fruit that has been seen in the State.

In the case fruit the chief awards went to Messrs. D. Calvert, "Forestholme," Ranelagh, and A. Davies, Cygnet. Mr. Calvert was successful in the plate fruit section, scoring in the "six plates of export Apples" and other classes. Other successful exhibitors were W. D. Cooper (Cygnet), T. Burnaby (Lymington) and W. Gilchrist (Cygnet).

SYDNEY:

Fruit Merchants Commission Agents

S. & M. Greenberg

No. 1 Store

Fruit Markets, Sydney

Also at Melbourne Markets

Tasmanian Shipping No. 161.

Victorian Shipping No. 42.

PROMPT RETURNS

During the evening the State Fruit Expert (Mr. P. H. Thomas) addressed the growers, detailing the work of the Fruit Division, and touching upon the essential points in spraying, drainage and manuring.

The last show of the season will be held at Franklin on 8th June. The Governor, Sir James O'Grady, K.C.M.G,. will be present and open the function.

### Fruitgrowers' Conference.

Owing to the State elections taking place in the early part of June, the Tasmanian fruitgrowers' conference will not take place until July.

A number of important matters have already been forwarded for the agenda paper. The conference will also elect the producers' representatives on the State Fruit Advisory Board.

# Citrus Notes.

Export :: Crop Prospects :: Grading Regulations
Items of Interest.

## MURRAY RIVER WHOLESALE CO.-OP. LTD.

### Successful Enterprise.

THE ANNUAL meeting of shareholders of the Murray River Wholesale Co-operative Ltd. was held on May 20th, at Berri, S. Australia.

This Association is an amalgamation of thirteen Murray River Co-operative organisations, for the purpose of obtaining their supplies unitedly. The Secretary is Mr. R. E. Downie, an able and enterprising man, and the success of this wholesale co-operative organisation is largely due to his capacity.

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(Established 1906)
**Fruit & Vegetable Salesman**
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Branches { Western Market / Victoria Markets
MELBOURNE

*Reference—Satisfied Growers in all States.*

The annual report of the organisation for the year ending December 31st, 1924, signed by the Chairman, Mr. C. A. L. Morant, is as follows:—

**Membership.**—No fresh applications for membership were received during the year, the number of members remaining, as at the time of our last report, at thirteen. Applications for shares will be submitted at this meeting, from Barmera Co-operative Packing Co. Ltd., Mildura Co-operative Fruit Co. Ltd., and Woorinen Fruit Growers' Co-operative Co. Ltd., and it is anticipated that other Interstate co-operative packing companies will shortly be applicants for membership. Your Executive, at its meeting in August, considered the position in regard to an extension of our work to Interstate companies, and decided that in view of the constant competition between S.A. and (particularly) Victorian buyers in the Overseas markets, it was necessary to secure the co-operation of our friends in the other States. The Interstate applications now before you are the first outcome of the negotiations.

**Earnings.**—The Balance Sheet and Statement of Revenue Account disclose an improvement in the earnings, and your Committee has decided, subject to the approval of this meeting, that interest at the rate of 7% per annum shall be paid on paid-up share capital, and a rebate of 12½% of the commission charged to members on purchases during 1924 shall be made.

This is done after clearing up the balance of £119/12/1 standing at the beginning of the year to the debit of Revenue Account. A statement of Revenue Account, for the four months ended 30th April, 1925, indicates that your Society can operate, now, with a purchasing commission of less than the rate now charged, but it is recommended that the present rate be continued for the current year, and consideration be given to the matter at the close of accounts in January, 1926, when either a retrospective reduction or a bonus to members can be decided on.

**Insurance.**—Our work with the Royal, as chief Agents for the Lancashire Insurance Co. in South Australia, has been satisfactory from a "service" point of view, and profitable as to earnings. Over-riding commissions to your Society have increased considerably in the past twelve months. If our Victorian friends should decide to place their insurance with the Lancashire, a very considerable portion of our administrative expenses could be met from earnings in this department.

**General Business.**—The value of goods handled for members during the year was £41,000, to which is to be added £8000 for goods purchased in 1924 for delivery in 1925, giving a total of £49,000 for the twelve months, an increase of £12,500 on the 1923 figures. During the year goods to the value of £24,120 were ordered on indent from overseas countries, and £24,880 was spent, on behalf of members, in Australia.

**Overseas Buying Arrangements.**—The bulk of our overseas buying has been done through Overseas Farmers' Co-operative Federations Ltd., working with Australian Producers' Wholesale Co-operative Federation at this end. The arrangement has proved an excellent one, our experience with the Federations being satisfactory in every way, and your Executive hopes that the business now transacted with them may be continued, and its volume considerably increased. Every opportunity of securing check quotations against those of our co-operative friends has been taken, but only on rare occasions have we had to send the business elsewhere.

The nature of our business precludes any statement of specific savings in the cost of members' requirements as a result of your Society's operations, a basis of comparison being lacking, but your executive is confident that the cost of production of dried fruit has been materially reduced as the result of our work, and this, with the improvement of the quality of the goods supplied (by standardisation of specifications, direct purchase, and the limited supervision over supplies that it is possible for one man to give) have justified the establishment and continued existence of your Society. Progress is summarised:—

1921—Membership, 7; gross purchases, £1000; gross earnings, £20 19/11. (The above covers a period of 3 months only, 1st October to 31st December.)

**SWANN & Co.**
Established 1822.
A century's experience in handling
FRUIT OF ALL DESCRIPTIONS
All Consignments for U.K. will have Personal Supervision and Attention
Account Sales and Cheques despatched immediately after sale.
**3 SALTER'S HALL COURT,**
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Cables:—FIREBRICKS, LONDON
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Australian Representative
Chas. E. Howship, 129 Queen-st., Melbourne, and Surrey Chambers, Perth, W.A.
Victorian Agent: H. M. Wade & Co., 471 Flinders Lane, Melb.

1922.—Membership, 10; gross purchases, £28,000; gross earnings, £563 14/9.

1923.—Membership, 13; gross purchases, £36,500; gross earnings, £1101 17/2.

1924.—Membership, 13; gross purchases, £49,000; gross earnings, £1372 11/10.

Your committee thanks members for the support accorded the Society in the past, and asks, confidently, for the loyalty and support of Society members, directors, and individual growers, members of local co-operative packing societies.

## SOUTH AUSTRALIA.

An interesting report on some aspects of the citrus industry in South Australia is to hand from Mr. J. A. Parkes, Secretary of the Murray Citrus Growers' Co-operative

Association, under date May 12th:—

**1925 Production.** — Estimates to hand suggest an output of approximately 70,000 cases from our members, but as growers are usually on the conservative side this will probably be exceeded.

**Export.**—This is set down at 2500 cases for July shipment, but an endeavour is being made to display and sell at Wembley Exhibition 1000 additional cases, if arrangements can be made this consignment will leave here about the end of June.

**Direct Sales Campaign.**—Last season the Waikerie and Murray View branches inaugurated a campaign of sales direct to the consumer; this proved so satisfactory that it will be continued during the coming season on a much larger scale. The details are practically identical with similar campaigns in Victoria.

Gerald Da Costa

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18, Stanley Street, Liverpool. (Facing Commercial Sale Rooms.)
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17, Humber Street, Hull.
Southampton Docks, (Facing No. 45 Shed).
202/4, Franklin Street, New York, U.S.A.
South West House, Greenmarket Sq., Cape Town, South Africa.

**Federal Citrus Council.** — The V.C.C.A. made a request for the appointment in each State of an additional member to this council. The matter was considered at a recent meeting of central executive, who agreed to the request, and the president of the association (Mr. F. H. Metters), Murray View, has been appointed.

**W.A. Organisation.**—This subject was under review at the March meeting of central executive. It was felt that steps should be taken to assist citrus growers in that State to organise their industry. Co-operation with the already affiliated States was desirable so that on all matters of Federal import the Citrus council could speak as one voice. In view of disastrous results on exports from W.A., it was thought that attention would probably be given to the Eastern States, consignments to which, if unregulated, would be a distinct menace to the whole of the citrus industry.

Westralia was approached through the medium of two of their prominent growers, who both considered that although organisation was essential growers were so apathetic that nothing short of compulsory legislation would move them. They were looking forward to the introduction of legislation on the lines of the Queensland scheme, and when the measure came before growers the time would be opportune for an Eastern delegation.

The V.C.C.A. approved of the proposal, but the N.S.W. Central Citrus Association considered that organisation should begin from within rather than from without. In the above circumstances no further steps will be taken at present.

## CITRUS GROWING.

### Crop Prospects, Export, Etc.

The Secretary of the V.C.C.A., Mr. B. S. B. Cook, states that a heavy crop is anticipated from some districts, whilst in a number of places the crop is light. For instance, the Mildura-Merbein district estimates a yield of fully 50 per cent. below last year's crop, but in several other districts it is at least 25 per cent. heavier. In the Perricoota district, which did not market more than 5,000 cases last year, the estimated production this year is from 15,000 to 20,000 cases. This increase, however, is not to be taken as typical of all districts, but will show the variation in crops.

Generally speaking, the quality of the fruit appears to be excellent.

The local market has opened out well, and the prospects are that good prices will be prevalent, provided growers do not rush their fruit on to the market in quantities above its capacity.

In regard to **Lemons**, the decrease in production in the Mildura area will affect the Lemon position so far as factories are concerned, as this district produces a larger quantity than any other place in the State. Other districts state that there is no summer crop showing, and as much as possible of the winter crop will be saved for the summer sales. It is anticipated, therefore, that a firm market will exist for Lemons.

**Export.**—Growers are reluctant to export and take risks of deterioration when they can secure certain prices on the Melbourne market. The impression that export is unprofitable is only correct up to a certain point. If the fruit arrives in good condition the New Zealand and Home markets are more profitable than the Australian market. For instance, last season the average nett return per bushel case on the Melbourne market was about 8/-, whereas three shipments to London averaged 9/1¼ per bushel nett, New Zealand shipments 9/8¼ per bushel nett. Taking the whole of the London shipments for last season, the nett average price was 7/1¾. Individual growers here and there no doubt got poorer returns from export than from the Melbourne market. The reason for this, however, was that they sent only by one or two ships, which happened to meet a poorer market in London, and not having any fruit in the later ships, their average price suffered accordingly.

H. M.
**WADE**
& CO.
*Fruit Merchants*
Prompt Advices of Sales
— CHEQUES WEEKLY —
**471 FLINDERS LANE MELBOURNE**

**Edward Jacobs**
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**LONDON, England**
Solicits Consignments of Australian Fruit.
**Tasmanian Representative:**
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PRINCES WHARF, HOBART
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**Fruit Production.**—Statistics show that the average production of citrus in Australia did not for the last season average more than one case per tree. This must be admitted as exceptionally low, and when the trees are bearing a normal crop, there will undoubtedly be a large crop of citrus which must be exported. It is important, therefore, that the trade channels, which have been opened up overseas should be maintained by growers sending forward as much as they can this season. If they do this they will be ready for the time when a big glut comes. In this respect it is interesting to note that recent statistics show that the yield from 3,000,000 trees in Australia was 3¼ million bushels. This is at the rate of a little over one case to the tree. It must also be remembered that there are at least another one million trees not bearing. In a normal season it is anticipated that from Navel Orange trees alone, the yield will be somewhere in the region of four cases to a tree. Thus the necessity for growers to bear in mind the question of retaining their export markets and fully developing them.

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North and Midland
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Are directly served by
THE PORT
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Every modern facility for prompt handling of fruit.
Docks and quays provide for quick discharge of cargoes.
Sales held daily during the season.
Express train service to all parts of England.
Australian Apples Sold at Hull in previous seasons brought the highest prices.
For further particulars apply to
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### Interstate Citrus Trade.

At the recent conference of Ministers of Agriculture, the restrictions which had been enforced on the importation into Victoria from New South Wales of citrus fruits other than Lemons were modified. Packing sheds, growers and agents in N.S.W. are allowed to export to Victoria now, provided they have a certificate from N.S.W. Department in accordance with the decisions arrived at by the conference.

## CITRUS GRADING REGULATIONS.

The new grading regulations (now in force) issued by the Victorian Government for fruit packing include the following grades as regards citrus:—

Oranges, Lemons, Mandarins, and Grape fruit intended for sale shall comply with the following provisions:

(a) Oranges, Lemons, Mandarins, and Grape fruit described as "Special" shall consist of sound, clean, well-formed, unblemished, fully matured, and wholly-coloured fruit, free from disease, of one size and one variety, and packed as prescribed.

(b) Oranges, Lemons, Mandarins, and Grape fruit described as "Standard" shall consist of sound, clean, well-formed, fully-matured, and wholly-coloured fruit, free from disease, of one size and one variety, of good weight for the variety, and packed as prescribed.

(c) Oranges and Mandarins described as "Plain" shall consist of sound, clean, fully-matured, and wholly-coloured fruit, free from disease, of one size and one variety, of good weight for the variety, and packed as prescribed.

(d) Oranges, Lemons, and Grape fruit shall be packed only in any one of the cases having the following dimensions (inside measurements clear of divisions):—

"Export case" 23 inches long x 11½ inches wide and 11½ inches deep. "Bushel case" 18 inches long x 14¼ inches deep x 8 2-3 inches wide. "Half-bushel case" 18 inches long x 7⅞ inches deep x 8 2-3 inches wide.

Fruit showing superficial blemishes caused by limb-rubs, sprays, thrips and oil markings arising from exudation of the natural oil of the rind, shall be allowed provided that the total area covered by such blemishes of any one fruit does not exceed the area contained in a circle having a diameter of one-half of an inch.

## CITRUS GROWERS!

### Pass This Good News On!

### Orange Juice Helps Post Operative Patients.

How Orange juice taken before an operation lessens the unpleasant after effects and hastens recovery, is told in a preliminary report of experiments on this subject, made in a current medical journal by M. G. Wohl, M.D., and B. H. Harms, D.D.S., of Omaha, Nebraska.

Studies on the use of Orange juice in combating the acidosis condition of the body which commonly accompanies anesthesia have been carried on for some time by these investigators. One hundred and twelve patients, to whom at least 200 grams of Orange juice had been given the night and morning before operation, showed a remarkable improvement in their post-operative recovery, as well as an almost entire disappearance of the usual post-operative nausea and depression. The Orange juice also appeared to make the taking of the anesthesia easier for the patient.

The theory, upon which experiments were based, is that the giving of alkalies and sugars best combats the acidosis condition. Orange juice, according to the belief of the two physicians quoted, appears to be the simplest and pleasantest form of glucose and alkali to administer to operative patients. The acids of the juice are oxidised in the body to form bicarbonate and in this way exert a beneficial influence in increasing the alkaline reserve.

Further experiments along the same line are being conducted, and will be reported later.—"California Citrograph."

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Open for
Consignments of
all Australian,
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Fruits
SALES BY PRIVATE TREATY ONLY.
WHICH GIVES THE BEST RESULTS
PROMPT RETURNS AND SETTLEMENTS.
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Agents Wanted in—
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# New South Wales

## MURRUMBIDGEE IRRIGATION AREAS.

(By Our Special Correspondent.)

**Fruit Marketing.** — Mr. Brady, the Manager of the Leeton cannery, has been putting in good work in Melbourne recently with the Commonwealth Minister for Marketing. Senator Wilson is expected in a short time to visit the areas, in order to get a practical knowledge of the fruit and other products of the areas.

Apricots and Elberta Peaches will be two subjects for special enquiry. If there is not encouragement from the export market for these classes of fruits, serious consideration will have to be given by the Leeton cannery as to whether it will be advisable to handle them. The minister has arranged to devote more time on the areas than the usual flying visit, and will be accompanied by Mr. Bell, the Managing Director of Robert Harper and Co. Ltd. The latter gentleman is particularly interested in the rice experiments on the area.

**Rice.**—About half a dozen settlers (to whom the Irrigation Commission supplied rice seed) have put down experimental blocks, and one lot of twenty acres (Grant's block) is estimated to yield one hundred bushels to the acre. There is another block of 50 acres that is expected to give a good yield. Several tons of this rice have been already threshed, and are being sent to Melbourne to be husked and polished.

After these processes the settler here will be better informed than at present of the possibilities of favourable competition with Java, and other rice growing countries. Seeing that rice can be grown on poor soil, much interest is naturally being aroused by the farmers whose farms are flat and of the clay band variety. It is essential that the land be flat for rice growing, and that water be kept on it till the ripening stage.

**Gypsum.**—The Irrigation Commission has been demonstrating its activity by further finds of Gypsum. The latest prospect is at Trida, in the neighborhood of Yenda, and will give a much better yield than the previous mineral lease acquired by the Commission.

**Manurial Trials.**—The State Agricultural Department also deserves commendation for its activity in connection with special manurial trials. Mr. Beverley, the Chief Agricultural Expert of the areas, has been specially concentrating himself on these manurial trials, and in your next issue I hope to give a satisfactory account of many results.

**Administration of the Areas.**—Things are getting more settled—acting commissioners and acting executive officers have petered out, and permanent officers with more authority have been appointed. The appointment of Mr. Fred Brewster as chief executive officer of the areas, and manager of the Leeton-Yanco sector, has caused great satisfaction. Mr. J. G. Youll has been appointed manager of the Griffith sector of the areas, and he will have a task in front of him in the soldier settler problem, and many other matters that want straightening out in that section of the areas. He will have the assistance of Mr. Braund, one of the most cultured agriculturalists of the State, which should considerably aid him in his complex tasks.

**Leeton Cannery.**—Jam making is going ahead well at the factory, and Mr. McNally, the new processor, fully warrants the enconiums that came with him from Bendigo. The jam now is more even in quality, and shows a general all round improvement. The existing stocks at the cannery are 240,000 tins of jam (24 oz.) and 1,800,000 tins of canned fruit.

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(GERMANY).
**Ph. Astheimer**
**And Sohn,**
Fruit Brokers . .
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(GERMANY)
Established 1863.
Largest receivers of Australian, Tasmanian, and American APPLES.
**Foreign Apples a Speciality.**

The cannery is receiving quantities of Raspberry and Black Currant pulp from Tasmania, and it is arriving in good condition. Attention is being given to the manufacture of tomato sauce and tomato puree.

**Local Government.**—Judge Pike is presiding at a commission in Leeton on this important matter, and settlers' minds are being diverted from their farms and orchards at present, in consequence. I think it can be taken for granted that the advocate for the Irrigation Commission at the inquiry will favor reasonable and fair treatment in the form of allocation of Local Government taxation. In the meantime the settlers will be wise if they appeal to have the many by-roads on the areas closed so as to minimise road maintenance.

# Victoria

## Reports of Meetings.

### FRUITGROWERS' COOL STORES ASSOCIATION.

THE QUARTERLY meeting of the Fruitgrowers' Cool Stores Association of Victoria was held on the 28th April, at the Employers' Federation Rooms, 325 Collins-street, Melbourne. There were present Messrs. R. M. Finlay (Diamond Creek) in the chair, J. Stevens and F. Moore (Blackburn), T. N. Cuttle and J. Stevens (Burwood E.), H. L. Tomkins and R. Langley (Croydon), J. J. Tully, R. E. Petty and E. Daws (Doncaster Cent.), W. Johnston (Doncaster East), J. Tully, J. Petty and A. Tully (Doncaster West), J. H. Lang (Harcourt), J. J. Gully and A. Thiele (Orchardists), S. M. Holland (Red Hill), J. W. Barrett and P. T. Young (Ringwood), T. White and T.E. Butler (Somerville), R. Read (Templestowe), R. Mair and F. Stockton (Tyabb), F. J. Byrne (Wantirna), E. I. Lawford and W. Lipscombe and J. H. Young (private visitors) and the Secretary, J. G. Aird, Ringwood.

**Long Distance Thermometers.**—A letter was read from the Minister for Markets and Migration advising that the shipping companies were not prepared to move in the matter of installation of long distance and self recording thermometers on ships carrying fruit. It was decided to urge the Minister for Markets to press for the installation, and that the association take steps to get into touch with the exporters and London merchants in connection with the matter.

It was resolved that the question of canning pears be discussed at the annual conference.

**Visiting Cambridge Scientist.**—The Secretary reported that a special meeting had been called on March 19th to meet Mr. A. J. Smith, a visiting Scientist from the Cambridge Low Temperature Research Station, who was in Australia investigating the Bitter Pit problem, and that the following resolution had been carried at the meeting:—"That this meeting recognising the urgent need for investigational work into fruit transport problems, requests the Commonwealth Government to appoint trained scientists for the purpose of carrying out research work in regard to cold storage and transport of fruit."

**Annual Conference.** — Decided to hold the next conference in Melbourne or some convenient place about the end of August.

**Cherries in Brine.**—Resolved that the meeting appeal to the Tariff Board not to interfere with the duty on Cherries imported in brine, and that this matter be left in the hands of J. Tully and the Secretary.

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WESTERN AUSTRALIA:
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"I might also particularly mention that I sized some 700 cases of MANDARINS with the "Lightning" and found that it sized them equally as well as the Navels."

"I have handled all sorts of Citrus fruits through your Grader—Common Oranges—Navel—Lemons—MANDARINS. I have found it makes no difference what one grades, with its wide range of adjustment it grades all alike with the same speed and accuracy."




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### VICTORIAN FRUITGROWERS' CONFERENCE.

#### Big Gathering at Echuca.

The twenty-ninth Annual Conference of the Victorian Fruitgrowers' Central Association was opened at Echuca on May 26th by the Minister for Agriculture, Col. Bourchier. There was a large and representative attendance from all parts of Victoria.

The Minister urged growers to organise and to adopt standard packing and grading: it was not the function of the Government to organise the growers. The Government had made provision to bring in an Orchard Tax Bill this year. Good work had been done by growers in organising kerb markets, and the Government would assist with finance.

Mr. W. H. Everard, M.L.A., urged growers to closely peruse the draft of the Orchard Tax Bill: to retain and develop the Central Association, and to resist any attempt to limit the marketing facilities as was suggested in the proposal to close fruit shops on Saturday afternoons. The undue preference given to the sugar industry was a burden on fruitgrowers. (Hear, hear.)

Many matters of importance were dealt with: a full report will be published next issue.

### VICTORIAN STATE FRUIT ADVISORY BOARD.

A MEETING of the Victorian State Fruit Advisory Board was held at the office of the Dept. of Agriculture, Melbourne, on May 20th. There were present Messrs. Ward, Supt. of Horticulture, in the chair, Cook (Citrus), Aspinall (Metropolitan), Bailey (Fresh Fruits), Thompson (Central Customs), Wade (Fruit Merchants), McNab (Soft Fruits), Sumner (Dried Fruits). Apologies were received from Messrs. Krone, Roberts and Mussen. The latter was granted leave of absence for twelve months.

The chairman apologised for the unavoidable absence of the Minister for Agriculture, Col. Bourchier.

#### Orchard Tax.

The Secretary read a report of the deputation to the Minister urging the imposition of an orchard tax, and detailing the Minister's desire to be assured that the majority of the growers desired the tax. The Chairman read sections of the draft Orchard Tax Bill, and agreed to explain same at the Echuca conference.

Mr. Sumner stated that vignerons desired to be specifically excluded.

Mr. Cook said there should be a levy on production. The £4000 proposed to be raised was insufficient and would be frittered away.

In answer to the suggestion that the Government should provide the funds for the organizing of the industry, the Chairman said the State and Federal Governments were doing more for the industry than the Government did in America. Here the Governments provided bounties on canned fruits, Doradillo grapes, assisted in the Pear shipment, provided money for the erection of cool stores, etc. In America the money provided was for research and educational work. Further, the Chairman stated that a field officer had now been attached to the Science Branch, which was specializing into problems concerning plant life. Twelve additional officers had recently been appointed to the Department. It was not the function of any Department or Government to organize the industry. The fruitgrowers should do this themselves.

#### Proposed Fresh Fruit Control.

Mr. Cook stated that at the recent conference, citrus growers requested to be removed from the scope of the Bill. The proposed Bill would doubtless suit the Apple growers, but as it did not give the power to compel every grower to export a portion of his crop it was not satisfactory to citrus growers.

The Secretary read the resolution from the Minister's conference in Hobart, agreeing to oppose the bill at the present juncture.

Mr. Bailey said the draft Bill had been discussed by a section of growers in Victoria who carried a resolution postponing consideraton for six months, or until the operations of the New Zealand Bill could be examined. However, should the other States agree, he hoped the Bill would be given a trial.

The Chairman said that the Bill was not approved in Western Australia and Tasmania.

Mr. Thompson (Central Customs) said that New South Wales approved of the Bill with slight variations.

On the motion of Messrs. Cook and Aspinall it was decided to refer the matter to the Australian Fruit Council.

**Payment of Freight in London.**

In response to the request for payment of freights at the port of destination instead of shipment, a letter was read from the Overseas Shipping Association and the Commonwealth Line regretting their inability to accede to the request, as it was tantamount to the reduction of freight, and ships in the Australian trade were now losing money. There were excessive port, harbour and light dues in Australia. The High Commissioner wrote in a similar strain.

A resolution was carried expressing extreme regret that the proposals were not agreed to, and it was decided to bring the matter before the Federal Fruit Council.

Dr. Cameron, Director of Agriculture, then attended and expressed regret that the Minister could not be present. He stated further that the Minister found he could not give the desired attention as a member of the Board.

Mr. Cook expressed regret that the Minister was not present, and hoped that he would attend on future occasions.

Dr. Cameron, speaking unofficially, said it was a somewhat anomalous position for the Minister to attend an Advisory Board and to take part in discussions on which subsequently he might take action differing from the views expressed. "I do not know," continued Dr. Cameron, "of any other Department working in this or any other connection in which the Minister is placed in the position in which he is, in connection with this Board. If it were a common duty of the Minister to be present at Boards which are formed in connection with the various interests with which the Department deals, he would lose his authority to carry out the purely Ministerial side of his duties."

Mr. Cook said it appeared that the Board was wrongly created. It was desirable for the Minister to be present in order to hear the views of the growers. Otherwise, if the Board had to approach the Minister afterwards, that might not lead to finality, and the Board was thus another cog in an already over-equipped machine. If the Minister were present it would save much time. He could either state the Government was favorable to the matters under discussion, or could tell the meeting frankly that they were on the wrong track, and that the proposals would not be accepted. The trouble was that the members did not know the Minister's mind on the subject, and a lot of time was wasted.

Dr. Cameron: I do not agree with you.

Mr. Cook: We waste a lot of time dealing with non-essentials, which could easily be disposed of, and in airing fads and fancies of our own, unless we know what is in the minds of the Minister or the Department, we are beating the air.

Continuing, Mr. Cook stated that the Board wanted finality on these matters. The same remarks applied to the Federal Fruit Council. Otherwise, an expensive organisation was being created but getting nowhere.

In reply, Dr. Cameron stated that doubtless the Minister would make these matters clear the next time he met the Board. Speaking unofficially he said it was not right to expect the Minister to keep members of the Board "on the right track" in technicalities. It was an obligation which the Minister could not possibly discharge. It was not to be expected that any Minister could be possessed of all the details relative to each section of the manifold activities of the Department he administered. The staff of the Department was there to keep continuity of policy bridging over the changes which occurred in Ministerial office. The Fruit Council was definitely along the lines of the Meat and Butter Councils, at both of which the Minister was represented by his deputy. "You are going to be very much disappointed," said the Director, "if you think that the Minister can join in your discussions and be expected to give decisions on the spur of the moment on matters of political and financial importance, or affecting inter-Departmental functions. If this Board desires to do what Mr. Cook has indicated you are going to put the Minister in a very embarrassing position."

Mr. Aspinall said he thought members quite understood the Board was an advisory one only, and that decisions could be communicated to the Minister later.

**Refrigerated Fruit Transport.**

The Chairman read the report prepared by Messrs. Wakefield, Ranger and Boardman, urging scientific research into refrigerated fruit transport, and outlining methods by which the ideals could be accomplished.

The Chairman stated this was one of the most important matters in front of the industry just now. He read the resolution from the Ministers' Conference, Hobart, recommending Government finance, provided the work was fully co-ordinated between the State and Federal authorities.

It was resolved that the matter be favorably referred to the Federal Fruit Council.

Published reports issued by the Food Investigation Board, dealing with fruit transport problems were received.

**Fruit Case Imports.**

The N.S.W. Fruitgrowers' Federation wrote requesting assistance in their efforts to prevent the proposed increase of duty on timber in shooks for fruit cases.

Mr. Bailey stated that the Canadian type case was, in his opinion, more suitable for Apple growers than the present dump case. It was decided to support the N.S.W. request.

**Apples for U.S.A.**

The Chairman reported that in response to a request from the Trade Commissioner, Mr. J. A. M. Elder, twelve cases of Apples had been sent by the s.s. "Eastern Planet" to New York.

A letter was received from the Co-operative Marketing Company of New York requesting consignments of Apples to reach New York in the months of June and July, and asking that cable advices be sent on receipt of the letter. The matter was referred to the Exporters' Handling Committee.

**Fruit for Hawaii.**

Mr. Thompson (Central Customs) reported that the Prime Minister was approaching the Hawaiian Government in order that consignments of fruit, if accompanied by Government certificates, certifying cleanliness from fruit fly, be permitted to be exported to Hawaii.

**Apples in England.**

Mr. Aspinall read a report from a London paper congratulating Australia on the excellent packing and quality of its Apples. He stated it was a pleasant answer to those who were inclined to decry Australian products.

**Wembley Exhibition.**

The Secretary read a letter to the Minister for Agriculture from Mr. J. S. Treloar, Secretary of the Empire Exhibition Committee, stating that the sale of fruit was being dealt with this season by Mr. E. Lee Neil.

With reference to the resolution expressing the opinion that the sale of fruit last year was entirely unsatisfactory in every respect, the Fruit Advisory Board has evidently been grossly misinformed on the subject, and has failed to appreciate the excellent advertisement received.

**Canned Apples.**

A letter was received stating there was a market in Cuba for canned Apples, peeled, cored, sliced and packed in water in containers holding 6

lbs. nett, and that Messrs. Armour & Co. advised having sold 200,000 cases last year, and this year had sold to arrive 50,000 cases at 24/- per doz. tins, c.i.f., London. Referred to the Canners' Association.

**Codlin Moth in W.A.**

A report was received that there had been an outbreak of Codlin Moth at Dandalup, W.A., and that this had been attended to by the Department of Agriculture.

**Finance.**

The Department of Agriculture advised having made a further grant of £100 to the Board.

**MARGETSON**
**& CO. LTD.**

Fruit Importers & Salesmen

30 James St. and James St. Warehouses,
11 Neal St.,
COVENT GARDEN
LONDON, W.C.
and at
Jamaica House,
9 & 10 Botolph Lane, London, E.C.
& 56-58 Stanley St., Liverpool

Sales by PRIVATE TREATY.
Prompt Returns & Settlements
Tel. Add.—FRUTERO, LONDON.
MARGETSON, LIVERPOOL
*Head Office—Covent Garden Market, London, W.C.*
Bankers:
LLOYD'S BANK LIMITED
Law Courts Branch, Strand, London, W.C.

**Shipping Nos.**
**431 and 432**

**Constitution of Board.**

The Secretary was asked to prepare a report showing the attendances of members, and as to the term of the appointment. Further, as to whether provision had been made for election.

A Member: Apparently we have been elected for life.

**Grading Regulations.**

Mr. Bailey objected to the exemption clauses in the grading regulations issued by the Department. The exemptions referred to fruit sold in open packages which need not be marked with the grade designation. There should be equal standards for all.

The Chairman stated that the grade standards applied to all fruit packed and sold in the State, these regulations being in line with the Commonwealth export regulations. There were no exemptions as regards packing and grading. Growers who marketed their fruit in open cases, however, were not required to brand the cases with the grade mark, as to do so would mean extra expense on the growers which the Department did not desire.

Buyers were able to see the fruit offered, and would form their own judgment as to whether it was "special," "standard" or "plain," and there was no need to mark that designation on their cases, most of which were second-hand, and were returned to the grower immediately the sale was made. The purpose of the regulation was to give the public a fair deal.

Mr. Aspinall said that the framers of the regulation were to be congratulated on having overcome what was previously a serious difficulty.

Mr. Bailey moved "that in view of the fact that the Minister has allowed exemptions the regulations gazetted be not enforced."

The motion lapsed for want of a seconder.

The matter was further discussed, Mr. Bailey insisting that all fruit for sale should be treated alike whether in open or nailed-up cases. He further moved "that the grading regulations be made to apply to all fruits."

Mr. Cook seconded the motion, which was carried.

Mr. Aspinall gave notice of motion that this resolution be rescinded at the next meeting.

Mr. Ward said that in America the growers' Associations had a higher standard than those set by the State. The State only desired to enforce decent grades of fruit for human consumption, leaving it to the associations to set higher grades for the bulk of the trade.

In reply to a question, the Chairman said that the cases containing citrus fruits should be marked "special," "standard," and "plain," according to grade.

The meeting then closed.

## FIRE AT RINGWOOD COOL STORES.

A fire occurred at the Ringwood Cool Stores, Vic., early in May. The fire occurred in the roof over three chambers, also damaging the outside walls. The insulation is damaged by water. The engines were kept running right through, with the result that the highest reading immediately after the fire was 34 deg. Prompt attention by the fire brigade effected what is known as a good save. A temporary roof was quickly erected.

**Pakenham.**—It is proposed to shortly erect a 20,000 case cool store—a canvass amongst fruitgrowers recently resulted in over 10,000 case space being applied for.

**Kyabram.**—A recent successful demonstration in the cool storage of Pullar's Cling Peaches has revived the suggestion of installing a cool store at the Kyabram Co-operative Cannery.

**T. STOTT & SONS**
**Fruit Merchants**
Established 1882

A Trial Consignment solicited from Growers in all States.

Prompt Settlement.

**11 WESTERN MARKET,**
**Melbourne**

**Fruit hipments**
**LONDON**
**Liverpool and the Continent**

**W. D. PEACOCK**
**& CO.**
24 Martin Lane, Cannon St.
LONDON, E.C., 4
AND HOBART, TASMANIA
*Solicit Consignments*
The High Standing and Long Experience of this Firm is a Guarantee that the Best Interests of Consignors will be conserved.

**Arsinette Spray.**

This Arsenate of Lead, which is available in powder form, is produced by McDougall & Robertson Ltd., Manchester, England, one of the largest manufacturers of insecticides in the world.

It should be used in a solution: 2 to 3 lbs. to 100 gallons water.

The present prices per lb. are as follows:—1 lb. package, 2/2; 2 lb. 2/-; 5 lb., 1/10; 25 lb., 1/7; 50 lb., 1/6½; 100 lb., 1/6.

The Victorian agents are Newell & Co. Pty. Ltd., 189 King-street, Mel-Melbourne. New South Wales: Buzacott & Co. Ltd., Sydney.



# FERTILISERS——

Making two blades of grass grow where but one grew before — causing the desert to blossom like the rose ; Is that a contribution to Humanity ?

With the years the Fertiliser industry grows. Steadily Australia's production develops, and just as steadily and surely the Australian consumption of SULPHATE OF AMMONIA increases.

SULPHATE OF AMMONIA, the ideal Nitrogenous Fertiliser, is used wherever Australia's foremost agriculturists till their holdings. It is an Australian product, and enjoys the distinction of being the cheapest and best Nitrogenous Fertiliser procurable within the Commonwealth.

*Sulphate of Ammonia literature from—*

The Australian Gas Light Co., Haymarket, Sydney, N.S.W.; The Broken Hill Prop. Co. Ltd., Newcastle, N.S.W.; The North Shore Gas. Co. Ltd., 193 Alfred Street, North Sydney, N.S,W. ; The Metropolitan Gas Co., 196 Flinders Street, Melbourne, Vic.; South Australian Gas Co., Waymouth Street, Adelaide, S.A.


as if allowed to remain longer on the tree they only become overgrown and are more suitable for the manufacture of peel, whereas if cut and cased now they will keep in good order so that they can be used during the hot weather.

## QUEENSLAND FRUIT MARKETING.

**Letter from Publicity Officer of the Committee of Direction.**

(The Editor, "Fruit World.")

Sir,—In your issue of May 1st, I find this passage:—"The position in Queensland is not a happy one. It appeared to many that steady progress in organising was being made by the Southern Queensland Fruit Society; some, however, thought that things were not moving fast enough, and a compulsory system of marketing was introduced. The legal actions published in this issue make sorry reading."

In reference to the above, it might be mentioned that the old S.Q.F. Society did a lot of excellent work, especially in the way of arranging for special train and trade conveniences; in making recommendations re packing and grading to growers, and in a score of other ways, but the S.Q.F.S. had its limitations. In the way of marketing on a big scale, it was impotent, having no effective power of control, and although it did good service in many ways, it was for the biggest purpose of all inoperative, and its constitution and limited powers did not allow it any hope of much greater developments.

You continue that "some thought things were not moving fast enough." In the most important direction they were not moving at all, and it was to help things along that legislative aid was invoked. Without that aid (which is only a replica of what has been done in other countries), the situation would have been well-nigh hopeless. Long experience has shown the Queensland grower that without some form of coercion effective organisation is not possible. The 20 per cent. who remain out of the organisation can always wreck prices against the 80 per cent. who come in.

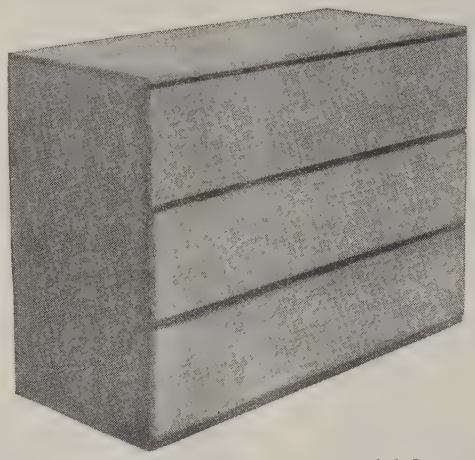
In a series of clever, though somewhat hostile articles to the Queensland C.O.D., which appeared in the "West Australian" newspaper, I find this concluding comment by the writer, "Scrutator":—"A voluntary association of growers in Western Australia which, it is said, embraces 95 per cent. of the vignerons, is already operating somewhat on these lines, but its members claim that their efforts are nullified by the rapacity of outside growers, who rush the whole of their output on to the market which has been made a payable one by the growers' sacrifice." But how is the "rapacity" of the outside grower to be restrained? One is sadly afraid that without compulsory legislation the case is hopeless.

If, as you say, the position in Queensland is "not a happy one," who has made it otherwise? The honest attempt at co-operation which had been largely successful, is being sapped by hostile business interests assisted by the discontented minority that always exist in any big movement. However, as the issue is now "on the lap of the gods" we must patiently abide the outcome.

You speak further about the "Revolt against undue compulsion." But in Queensland the revolt is not against undue compulsion. It is against any form of compulsion at all. The "League of Freedom" claims the right of the individual to buy and sell wheresoever he chooses, and to whomsoever he chooses—absolutely; liberty, which is clean impossible under any system of control. By the way, I notice in your last issue that one great fruit association (citrus) in California **"marketed co-operatively"** nearly 10 million pounds worth of products. So the thing is possible, after all.

P. AIREY,
Publicity Officer, C.O.D.

[Exactly, quite possible, and without compulsion. It has taken over a quarter of a century to bring the Californian Citrus Growers' Associa-



Australian Apple and Citrus Dump Bushel Case.

# SOFTWOOD CASES

(IMPORTED)

*Cheaper than hardwood if exported.*

*Cut to Australian Standard Sizes*

**DUMP BUSHEL** with one piece top and three equal piece side

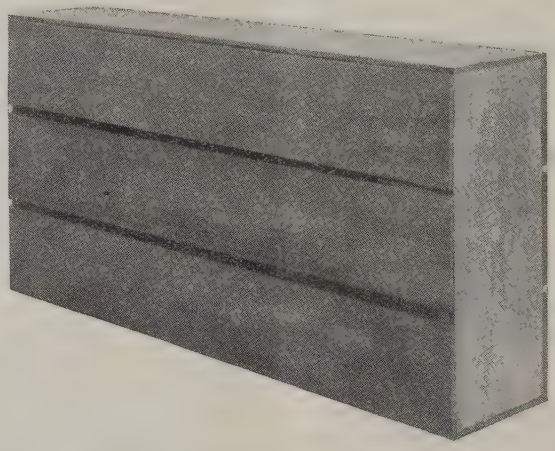
**UPRIGHT BUSHEL** with one piece top and three equal piece side

**DRIED FRUIT CASE** with one piece side and two equal pieces tops and bottoms

**CANNED FRUIT** with one piece side and two piece tops and bottoms

## SOME ADVANTAGES IN FAVOR OF IMPORTED CASES

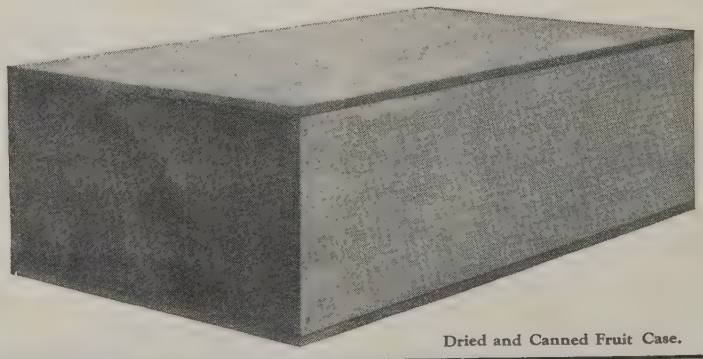
(1) *Full drawback of duty allowed on all cases exported*
(2) *1/3rd less freight than on Hardwood cases*
(3) *25% rebate on rail freight for full trucks*
(4) *All timber cut to exact sizes making it an easy matter to assemble a symmetrical case*
(5) *Every piece of timber fit and ready for use, thereby eliminating waste*
(6) *Can be supplied in shooks, or made up and branded*



Upright Bushel Case with Centre Partition.

**Particulars from the Largest Importers**

# Overseas & Interstate Trading Co. Ltd.



Dried and Canned Fruit Case.

52 Market Street,
Melbourne

*Phone Central 9110*

Also
King William Street,
ADELAIDE

tion to its present successful position, —steady growth on constructive lines and working harmoniously with wholesaler, retailer, the press, and the general public. It was the general harmony which so impressed an impartial observer like Dr. Cameron, the Victorian Director of Agriculture, on his recent visit to California, and he now urges all concerned with organising the Australian fruit industry to visit California to study the successful methods in operation there.—Editor "Fruit World."]

### Appreciation.

Cherry Gardens, Sth. Aust.,
24th March, 1925.

Enclosed please find postal notes for 8/6 for subscription to the "Fruit World" for the next twelve months. Wishing you continued success.—
Yours sincerely (Signed) I.L.S.

**Spray Spreaders.**—An interesting booklet dealing with the subject of spray spreaders has been published by Messrs. A. Victor Leggo & Co., Collins-street, Melbourne. This preparation has the effect of spreading the spray in a thin film evenly over every surface, thus enabling the producer to grow better fruit and vegetables. Its adhesive qualities make the spray stick so well that rain has no effect. Further particulars will be found on page vii. The booklet is obtainable free on application.


**Latham Dehydrators**

"STAND ALONE"

The "Rolls Royce" of the Artificial Drying World.

**Some Installations for Foodstuffs.**

| Purchaser | Principal Prods. |
|---|---|
| **Merbein Dehydration Trust,** Mildura | Sultanas Raisins etc. |
| **Tasmanian Dehydration Pty. Ltd.** Bridgewater two plants. | Apricots Prunes Apples |
| **Charles Martin,** Yackandandah | Prunes |
| **Swallow & Ariell Ltd.** Port Melbourne. | Carrots Turnips Cabbages, etc. |
| **Woorinen Co-op. Pack. Shed,** Woorinen | Sultanas Raisins etc. |
| **Aurora Pack. Co. Pty. Ltd.,** Irymple. | Sultanas Raisins etc. |

**D. J. LATHAM**

**157 Queen Street,**

**Melbourne, Australia.**


# Western Australia

## STATE FRUIT ADVISORY BOARD MEET

### Imporant Matters Discussed.

A MEETING of the Western Australian State Fruit Advisory Board was held at the Department of Agriculture, Perth, on April 8th. There were present:—Messrs. Owen Sparks (chairman), T. Skinner, Gus. Sharp and E. Simper (Fresh Fruits), F. J. Becher and G. Schmidt (Citrus Fruits), A. H. Convoy and P. H. Taylor (Dried and Fresh Grapes), A. H. Dickson (Fruit Shippers), F. W. Lantzke (Local Distributors), and Geo. W. Wickens (Department of Agriculture).

**Fruit Marketing Control.**

Mr. L. R. MacGregor explained the Queensland Fruit Marketing Organisation Act and its operations in Queensland, and answered numerous questions.

A sub-committee consisting of Messrs. Convoy, Sharp, Becher and Simper drew up a report (as follows) for submission to the Minister of Agriculture:—

"We, the Members of the W.A. State Fruit Advisory Board wish to thank the Minister for Agriculture for the opportunity of hearing Mr. MacGregor explain the provisions and workings of the Queensland Marketing Organisation Act. Mr. MacGregor placed before us all phases of the organisation in a very clear and satisfactory manner. Members fully availed themselves of the opportunity for criticism. We have realised for some considerable time that all attempts of voluntary organisation would fail, and in our opinion some form of compulsory control under statutory power is necessary. We have found that best results here have been obtained through working harmoniously with distributing agents and the shipping committee, and we think that if an Act on similar lines to the Queensland Marketing Organisation Act is adopted here (and we, as a a body, have been unable to discover anything that is inimical to the industry in that Act) that any Committee of Direction appointed should be expected to at all times confer with the distributing agents and others directly interested before making drastic changes. Producers, however, should be the final arbiters as to whether any section of the industry be brought under control. We feel that the success of the whole measure rests on thorough organisation, and we are particularly impressed with the method adopted in Queensland whereby the Council of Agriculture was formed and charged with the organisation of the various primary industries."

**Railway Matters.**—A deputation consisting of Messrs. Schmidt and Simper was appointed to wait on the Commissioner for Railways requesting (1) louvre trucks for fruit carriage, (2) that growers' agents be permitted to send fruit to any port in W.A. for 5/, a privilege now enjoyed by growers only.

**Packing Demonstrations.** — Mr. Sparks stated that no reply had been received from the Education Department requesting permission to hold fruit packing classes for school children. However, demonstrations have been arranged for children who have left school and very useful work was being done at these classes.

Mr. Simper read a letter from Singapore in regard to packing stone fruits for export which arrived at that centre in splendid order and realised very high prices. He emphasised the fact that if fruit is packed properly the returns received will be high.

**Fruit for Colombo, Alexandria, Port Said, Etc.**—Mr. Simper stated that a deputation from the Spearwood Fruitgrowers' Association, also the Swan Association, waited on the Prime Minister while at Spearwood, emphasizing the need of cold storage space on boats calling at the ports of Colombo, Alexandria, Port Said, etc. It was resolved to bring this matter before the Australian Fruit Council (also referred to the Fruit Shippers' Committee).

**Organisation of Citrus Growers.**—A wire was received from Mr. Parkes, Secretary of the Murray Citrus Association, asking whether if a delegation from affiliated Associations visited the whole of the citrus districts with the object of assisting the formation of a Westralian Citrus Association, and affiliation with the Central Society, it would have the approval of the Westralian Citrus growers. (Referred to Citrus members of the Board.)

**Subsidy on Ohanez Grapes.**—The question of the subsidy on Ohanez grapes exported was referred to the Australian Fruit Council.

**Fruit Transport and Scientific Research.**—The report of the fruit transport committee of the Australian Fruit Council was received. Resolved that the Minister for Agriculture be requested to co-operate in providing portion of the amount needed for the necessary research work.

**Reduction of Freights.**—It was decided to advise the Railways Commissioner that the reduction of freights, promised on the passing of the Land Tax Bill, had not materialised.

**Australian Fruit Council.**—It was decided to request the Minister for Agriculture to allow Mr. Wickens, the Officer in Charge Fruit Industries, to attend the next meeting of the Australian Fruit Council.

The following delegates were appointed:—Messrs. Gus. Sharp, F. Simper, F. J. Becher and A. H. Convoy.

It was decided to ask for a copy of the agenda paper in time for it to be considered before the delegates left W.A.

**Dried Fruit Industry.**—Mr. Yeates, the Western Australian representative on the Dried Fruit Board, by permission, addressed the Board. He said his position was somewhat anomalous owing to the fact that, although Victoria and South Australia had Acts in force in connection with the industry, Western Australia had none. He considered it was vitally necessary that some form of State control should be effected to work in with the Federal control, and he asked Members to use their influence with the Minister for Agriculture in an endeavor to have a State Act controlling Dried Fruits brought into operation.

**Finance.**—As another meeting was deemed advisable before the Australian Fruit Council meeting, and as the funds would not permit this, it was decided to ask the Minister of Agriculture to provide the necessary funds for an additional meeting.

---

Jones was at a dinner party. He was shy and nervous, and could never summon up courage to speak because of his inability to say anything neat.

All the evening he had been trying to think of something nice to say to his hostess. At last he thought he saw his chance.

"What a small appetite you have, Mr. Jones!" said his hostess, with a smile.

"To sit next to you," he replied gallantly, "would cause any man to lose his appetite."


# GYPSUM

Without parallel as a Soil Corrective at Very Moderate Cost

*Splendid results obtained by its use in citrus and other orchards*

Also Lucerne plots

Write for descriptive pamphle

ARTHUR H. HASELL

*17 Queen Street, Melbourne*
*31 Hunter Street, Sydney*
*Lipson Street, Port Adelaide*

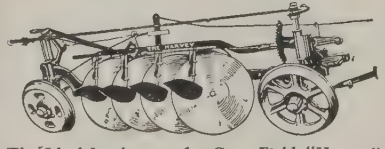


# The New "Harvey" Tractor Ploughs & Cultivators

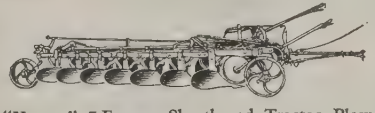
ELIMINATE MISDIRECTED ENERGY
WASTE TIME and NEEDLESS STOPS

**"Harvey" Power Lift Tractor Drawn Implements are always ready & simple to operate**

**Made in sizes from 2 to 7 Furrows.**

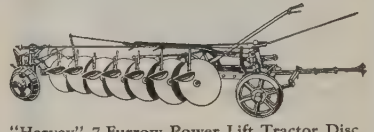


The Ideal Implement for Cane Field "Harvey" 4-Furrow Power Lift Tractor Plow (Model H.D 4.)

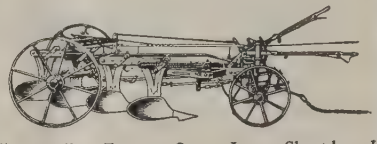


"Harvey" 7-Furrow Shortboard Tractor Plow, fitted with D Steel Shares and Circular Coulters. (Model D2).

"HARVEY"
STUMP-JUMP
POWER-LIFT
TRACTOR
- PLOWS -
are
Made in Sizes of 3-7 Furrows
& Fitted with 'D' Steel Shares



"Harvey" 7-Furrow Power Lift Tractor Disc Plow (Model H.D4.)



"Harvey" 4-Furrow Stump-Jump Short-board Tractor Plow. (Model S.J21).

There is a "Harvey" Implement for every purpose on the
ORCHARD, VINEYARD OR SMALL FARM

Spare Parts Obtainable at Shortest Notice

Send for Catalog and Descriptive Matter of our Complete Range of Implements.

D. HARVEY, Implement Manufacturer BOX HILL, MELBOURNE

*Show Room:* F. R. Mellor, 440 Elizabeth St., Melbourne

# Fruit Packing and Grading.

Regulations in Force in Victoria.

Commonwealth Standards Apply to Local Trade.

"Open Case" Section Exempt from Branding.

Penalties for Rough Handling.

REGULATIONS governing the packing and grading of Vict. fruit and vegetables have been gazetted. The new regulations came into force on April 1st, 1925. All growers are advised to secure a copy of the regulations, same being available at the office of Mr. J. M. Ward, Superintendent of Horticulture, 605 Flinders-street, Melbourne.

The main provisions of the regulations in so far as they affect the marking and distribution of fruit in Victoria are as follows:—

Standard sizes are fixed for all packages in which all classes of fruit are packed, including stone, pip and berry fruits, Grapes and Tomatoes.

All fruit or vegetables must be packed in cases, or stacked in lots on barrows or in fruit shops in such a way that each external layer on the top, bottom and sides of the fruit or vegetables shall be uniform in respect to grade, and shall be a true indication of (a) the average grade throughout of the whole of the fruit or vegetables in any package or in any lot; (b) the manner in which the whole of the fruit or vegetables are packed or stacked; and (c) the presence of any foreign substances. "Foreign substances" means any earthy matter, stones, sand, or gravel, and, in the case of Onions, an excess of loose skins.

In addition to these general requirements, grade standards have been fixed for Apples, Pears, citrus fruits, Tomatoes, Potatoes and Onions. Three grades are provided for Apples, Pears and citrus fruits. The regulations for Apples and Pears for local trade are the same as for export—"Special," "Standard" and "Plain." There are four grades for Potatoes and two grades for Onions and Tomatoes.

Provision has been made in the lower grades for a certain proportion of lower grade fruit or vegetables, but all packages must be branded with the true grade designation. The branding of packages containing fruit, Potatoes or Onions must include the following:—(a) the initials of the Christian name and the full surname of the owner of the fruit, or his registered brand, or in the case of a firm or corporation with the firm or corporate name or registered brand; (b) the name of the variety or varieties of fruit; and (c) in the case of Apples, citrus fruits, Pears, Tomatoes, Potatoes, and Onions the designation of the grade.

**Exemptions** are made in the case of the following:—(i) fruit sold in open packages, that is, with the lid or side removed. These need not be marked with the owner's name or address nor the grade designation; (ii) fruit sold for factory purposes, provided that the words "for factory use only" are legibly stencilled on the case; (iii) fruit for rabbit poisoning, provided the words "for rabbit poisoning only" are marked on the case; and (iv) when Blackberries, Cherries, Currants (red and black), Cape Gooseberries, Raspberries and Strawberries are packed in packages of the prescribed size, the packages need not be marked with the grower's name and address.

Provision is also made against the rough handling of fruit or vegetables for export, during the operations of handling, stacking, loading or unloading.

Penalties of £1 for the first offence, and £10 for a second or subsequent offence are provided against breaches of the Regulations.


**FOR SALE**

**PRUNE TREES**

We have the following varieties of well-grown Prune Trees FOR SALE

Prune D'Agen. President.

Robe De Sargeant. Sugar.

Coates 1418. Coates 1403.

(Latest Californian Prunes.)

**Prices are as LOW as they can be made.**

For further particulars, write to

**D. W. IRISH & SONS**

*"Indaola Citrus Grove,"*

**BAMAWM, - - Victoria.**


## Wheeler's Hill (Vic.).

Elinora Orchards, in charge of Mr. Aubrey Stott, have this season produced a good proportion of very fine Apples and Pears.

Returns from Mr. Esmond Russell for the first shipment of 300 cases of Apples on s.s. "Mooltan" are as follows:—63 cases Shorland Queen, 20/-, 19/-, 18/-, 17/-, 15/-; 60 cases Cox's Orange Pippin, 40/-, 36/-, 35/-; 177 cases Red Reinette, 19/-, 18/-, 17/6, 17/-, 16/-, totalling the sum of £266/13/-.

Reports from London state that the fruit was well graded and packed; very nice fruit, and very good colour indeed.

Autumn ploughing has been completed on this large property, and seed for green manure planted.

All of the 13,000 trees, with few exceptions, are looking well. The exceptions are those which felt the Black Spot infection to a certain extent, but special efforts will be made to overcome it for next season.

## Dehydration of Fruit.

The "Invincible" Dehydrator was selected by the Department of Agriculture for the dehydration of all fruits, vegetables, etc., and installed at the Hawkesbury Agricultural College, Richmond, New South Wales.

This dehydrator was selected because of its easy adaptation in the dehydration of all the varied products which the Agricultural College considered necessary in the training of students in all classes of fruit growing.

The "Invincible" dehydrator has been operating at the Hawkesbury Agricultural College since the end of 1923, and its successful operation has justified the Department of Agriculture in ordering another plant for similar demonstrations of fruit drying at their Experimental Farm, Yanco.

This firm has been most successful in the manufacture and erection of drying machinery and plant for all classes of industries and varied products.

## Gypsum.

The use of Gypsum as a soil corrective, neutralising mineral poisons, adding sulphur and lime, releasing ammonia, and potash, breaking up heavy soils and binding together sandy soils, is not as well known as it should be. The Victorian State Rivers and Water Supply Commission has found gypsum so beneficial that last season they distributed quite a large quantity of Boort gypsum in the Shepparton district; the Department of Agriculture also had most successful results with their experiments on poor, heavy land in the Western District for growing wheat, by heavy application of the same gypsum.

The cheapest way to buy gypsum is to get it in bulk in truckloads, when the cost amounts to only 17/6 to 27/6 per ton, delivered to buyer's station in Victoria only, the price varying according to the Victorian railage.

Mr. Arthur H. Hasell, of 17 Queen-street, Melbourne, was the pioneer of the gypsum industry, when he opened up his works at Boort in the year 1899, and published a pamphlet giving comprehensive information, which is still obtainable on request.




## Poultry Notes

(By Ian P. Hamilton.)

THE MONTH of June is a busy one for the poultry breeder. The incubators and brooders have all to be got ready for the early hatchers, and the birds require careful attention if egg supplies are to be kept up during the cold weather. It is at this period of the year that eggs bring big prices, and every effort should therefore be made to see that the pullets are kept laying without interruption.

Inspect all houses carefully and see that there are no leaky roofs or exposed and draughty sheds in which the laying fowls are too much exposed to weather conditions. Breeding pens should be light, warm and airy.

See that a good supply of litter is kept in the pens. This not only provides scratching exercise for the birds, but keeps them in good laying condition.

Avoid the use of much spice. A good supply of boiled liver or rabbit, chopped up and fed twice weekly is excellent. Succulent green feed is better than chaffed stuffs, and should always be on hand where practicable.

An occasional dose of epsom salts helps to keep the birds healthy. Give about one teaspoonful for every twenty birds.

Nest eggs are neither necessary or advisable. They are usually made of hard material, and often crack the hen's egg when laid, and this is apt to bring about the egg-eating habit.

In dividing stock into breeding pens always allow four square feet of floor space for each bird. For very large table breeds five feet may be allowed.

Always remember that grit does the work of teeth for the fowl, and see therefore that there is some always before them.

Do not set any eggs or sell any for setting that do not come up to standard size.

A strain of small egg layers may gradually develop unless careful selection is always carried out, and only the large, uniform eggs used.

In feeding for best results avoid all cheap or musty food. Remember, too much grain causes liver trouble, too wide a ration should be avoided, give quality rather than quantity.

Look to your male birds for the breeding pens. It does not pay to mate good layers with an inferior male. Remember, the influence of the male affects all the chicks from the pen which he heads, but the influence of a hen only affects chickens hatched from that particular hen's eggs.

See that you have a good supply of lettuces coming on for the chicks. See that all birds included in the breeding pens are of standard size and properly developed in every way. Cultivate the neat-headed, prominent-eyed bird, close feathered and full of quality.

## Bee-keeping Notes

### Care of Stored Honey.

IF HONEY is stored in a damp place and not thoroughly sealed up, it will absorb moisture, and if excessive moisture is so taken up the honey is liable to ferment and deteriorate in value. Do not leave the lid off the containers, or leave honey exposed for any length of time during the late Autumn or Winter months. If kept in a dry place in a sound container, honey will keep good for years. It may granulate, but that is not a sign of deterioration.

There appears to be no practicable method that can be classed as an absolute preventive of granulation. Some honey has a tendency to granulate more quickly than other honey. For example, the honey from the Peppermint will readily granulate, while that from the yellow box and iron bark will usually remain liquid for a considerable period.

Some honey will granulate with a coarse grain, while other will have grain as fine as icing sugar. Clover and lucerne have a very fine grain when granulated (candied), while that from some of our eucalyptus gums has a coarse grain.

Granulated honey can be liquefied by immersing the tin in water heated to 150 deg. Fah., and if the operation is carefully carried out the quality is not deteriorated materially in this first heating.

### MIRACLE OF HONEY BEES.

A honey-bee weighs 1-200th of an ounce; its "load" of nectar is therefore, extremely small.

An American scientist ascertained that the average load weighs 1-1250th of an ounce—a quarter of the bee's weight.

"This means," (writes Canning Williams, in "Chambers' Journal") "that 20,000 journeys (reckoning the outward and inward trip as one) are necessary for the gathering of a pound of nectar; but as flower juice loses at least one-half of its bulk before it becomes honey, it follows that the production of a pound of honey involves on this reckoning a minimum of 40,000 journeys. If we assume that the average trip out and home measures half a mile (a low estimate), the immense distance of 20,000 miles must be covered in gathering the raw material for a pound of honey. This is equal to 1250 miles per ounce.

### FEEDING BEES.

"With the close of the honey harvest, breeding slows down in the hives, and eventually ceases entirely as Winter draws nigh." (says Henry Geary, in the Bee-Keeper's "Vade Mecum"). This means that in early localities, the approach of Winter finds the colonies with an undue proportion of old bees. These are precisely the kind of bees which the beekeeper does not want when he packs his hives up for Winter. What he requires is a large number of young bees whose vitality will ensure a good start for the colony in the Spring. Old bees die off rapidly during the Winter months, and the advent of Spring causes a still more rapid diminution in their numbers. Then if there be a lack of younger bees, the colony rapidly becomes valueless, or very nearly so.

"Young bees may be secured for wintering purposes by a system of slow feeding from the close of the honey flow for several months. The best feeder for the purpose is the graduated bottle feeder, allowing the bees access to one hole only."

## Pig Rearing

INTRODUCED into Australia only a little over twelve months ago, the Gloucester Old Spots breed has made rapid headway, and has found not a few ready to give the variety a trial. The impetus can be mainly traced to the arrival in Australia of Mr. A. E. Ball, a prominent Somerset breeder, who brought out quite a number of the breeds with him, and has now established a stud near Sale. He has received great encour-

# 1009 EGGS

## from 7 hens — in winter

Fact beats fiction. Test beats talk. Opposite we reproduce the actual testimonial, typical of many received, of a poultry "backyarder" at Campsie, Sydney. It is an achievement well worth being proud of; one that will, without question, convince the most sceptical that, with the aid of Karswood Poultry Spice (which contains ground insects) a regular supply of eggs, is easily and economically obtainable in Winter. Read this testimonial; note how economical the cost of "Karswood" is, and you will then realise how easily and cheaply you can keep a few fowls, and have a regular supply of eggs if you are a "backyarder," and, how profitable the Winter period can be for you if a Poultry Farmer. In addition to this wonderful testimonial many others are quoted, all testifying, by actual experience, to the wonderful value of "Karswood."

### Wonderful Results.

Dear Sirs,—

I would like to inform you of the results I have obtained from using "Karswood" Poultry Spice. I was first informed of this spice by a friend of mine, who strongly advised me to use it during the moulting period. I was somewhat dubious at first in using it, as I was not a believer in spices for fowls, but after seriously considering it on account of the scarcity of eggs, I tried a packet, and am glad to state that I have had wonderful results from it. After using it a fortnight you could see a wonderful improvement in the condition and the plumage of the birds, it having considerably assisted them through the moult, and actually started them laying in the middle of it. After using several packets of "KARSWOOD," and when my fowls were laying heavily, I decided to leave off "KARSWOOD," but after a few weeks my eggs decreased 50 per cent., I again decided to test the qualities of "KARSWOOD," and glad to say that after a few days my fowls were again laying heavily.

I am writing this to you as I feel that you have given to the Poultry Keeper a chance in obtaining good results from their fowls, and to "KARSWOOD" must be given the credit.

You may use this letter in any way you think fit, and again thanking you, I am,

Yours faithfully,

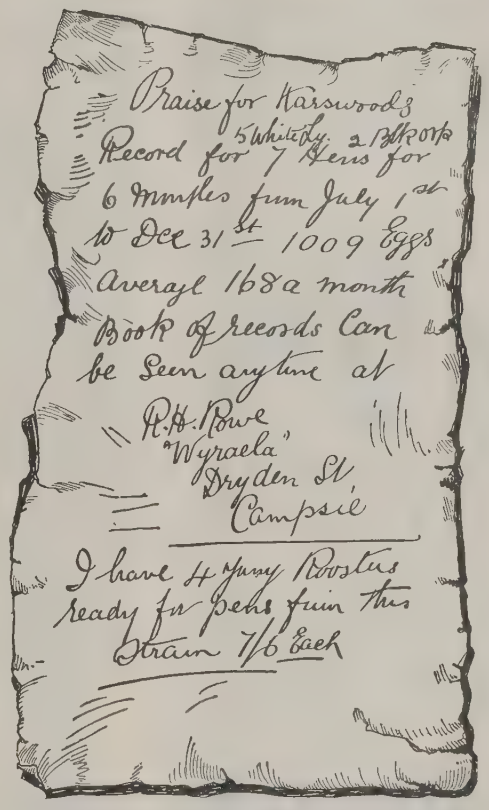
(Sgd.) WALLIE R. ROBINSON.

9 Austral Terrace, Malvern, S.A.

### Hundreds of Eggs

Gentlemen,—

I should like to say that I have used your Poultry Spice for two years—ever since I started to keep




*Facsimile of actual Testimonial received from R. H. Rowe, Campsie.*

fowls. I have never had more than eight White Leghorn fowls, and have had hundreds of eggs from them. Your Spice was recommended to me by a friend who brings it to me from town, as Mr. Meadows, who supplies me with pollard and grain, does not keep it.

(Sgd.) P. M. BAITLE.

28 Edward Street, North Sydney.

### Note the Economy

1/ packet supplies 20 hens for 16 days.
2/- packet supplies 20 hens for 32 days.
13/- (7lb. tin) supplies 140 hens for 32 days.

### Supplies

"Karswood" Poultry Spice is obtainable from all Stores and Poultry Food Suppliers at the following standardised prices:—

| | |
|---|---|
| ½ lb. packet . . . . . | Price, 1/- |
| 1 lb. packet . . . . . | Price, 2/- |
| 7 lb. tin . . . . . | Price, 13/- |
| 14 lb. tin . . . . . | Price, 25/- |
| 28 lb. tin . . . . . | Price, 48/- |

*If your local dealer cannot supply you, write direct to "Karswood," Box 2138, G.P.O., Sydney, adding postage to the above prices.*

agement in his efforts to introduce the breed which he considers has many good qualities, and during the past six months sold 25 litters for stud purposes. Several Gippsland breeders have introduced Gloucester Spots, and the breed is now extending to other parts of the Commonwealth. Mr. Ball considers that Australia, with its ideal climate, abundance of milk, and the production of a variety of fodder, offers splendid opportunity for pig breeding. His only regret is that he did not come out 20 years ago.

The history of the Old Spots dates back very many years. For a long time, however, the breed was kept entirely to the West of England, and in 1913 a society was formed to further its interests. At that time £10 was regarded as a good price for a well-bred pig of the breed, but in less than seven years up to 600 guineas had been paid for a boar and 1050 guineas for half a litter. In the official herd book of the society are entered 3914 boards and 12,412 sows.

For prolificacy the Gloucester compares very favorably with other breeds, litters of 22 being known, while the average is about 8 or 10.

The breed is characteristically quiet and docile, and the young pigs can be brought to the porker stage in 14 weeks, and are ready for market as baconers at five to six months. Gloucesters are a fine, lean, bacon pig and noted for great length of side and weight in hind quarters. Gloucesters do particularly well when grazed with the principal feed ration, soaked barley and pollard. Lucerne is one of the finest legumes, and has been found very suitable for Gloucesters, which relish it.

## WEANING PIGS.

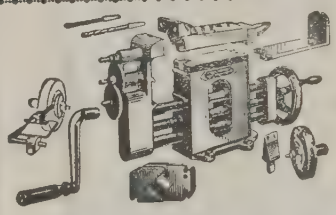
In the opinion of a leading English breeder, the best method of weaning pigs is to start feeding them with a little meal made into slop, as soon as they are seen to be helping themselves at their mother's trough. Their own trough can be put inside a creep where the sow cannot get at it. The pigs should have almost as much as they will clear up twice a day.

At eight weeks, or at any time after this age, the little pigs can then be taken away from the sow, and as they have been used to feeding there will be no check in their growth. With regard to the sow, the best plan is to put her on short commons for about two or three days before the pigs are removed (giving her only 3 lb. or 4 lb. of her usual mixture, or a few feeds of sharps or middlings alone), and keep her short of food for two or three days afterwards, so that her milk dries up.

The navel strings of the little pigs should not, as a rule, be touched, for they will dry up naturally. At the same time, if they are very long and get tangled round their legs, it is possible to cut them off with a knife or a sharp pair of scissors, but at least two inches should be left attached to the pig.

## A PLEA FOR FARM WOMEN.

"The man on the land may make a periodical valuation of his live stock and dead to determine his financial position. He will write off a certain amount of depreciation, but which of us can place a valuation on the best asset we have—our women folk—and who will calculate the amount of depreciation brought about by impaired health, often the result of our own thoughtlessness or indifference." There were many settlers who went on the land who, to his mind, seemed to start at the wrong end of the job, continued Mr. W. L. Davies, of Kalangadoo, in the course of a paper read at the women's session of a congress of the South Australian Agricultural Bureau. He knew only too well that funds would not allow them to do all that they would wish; but there were some who seemed to think that, while Dobbin must have a nice warm stable, anything would do for mother and the youngsters until they could get a start, and the start often took so long to accomplish that by the time the nice big new house was built the youngsters had scattered, and mother somehow did not seem to have much appreciation left for her altered circumstances.

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*Indispensable Tools for the*
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*Vyce, Anvil, Cutting Hardie, Drilling Jig & Drills, Grinding Wheel, Pipe Vyce—all well & strongly made into a compact handy outfit — a tool of a hundred uses!*

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"HANDY WORKER"

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*We have a Reputation* — Hardiness, Healthiness and Vigor, are characteristics of the trees sent out from Lasscock's Nurseries.—Our Customers say so!

Grown under ideal conditions they make rapid headway when transplanted to new quarters.

Special attention is paid to Packing. All worth while varieties are listed. Prices Right.

Send for Lasscock's New Catalog.

Lasscock's Nurseries, Henley Beach Road, LOCKLEYS, STH. AUSTRALIA

## BATTLERS AND SIDELINES.

### Dodging the Export Quota.

According to somebody, whose name I can't remember, "A genius is a man with infinite capacity for taking pains." Maybe he was right, but he might just as easily have said, "A capacity for removing pains," and been nearer the mark.

For example, the inventors of chloroform and the guillotine were geniuses with that remarkable capacity. I'd hand the cake to Doc Guillotine tho', as one visit to his invention would remove all your earthly pains and misery before you could say "Knife."

I don't know who invented sausages, but whoever it was I'd put him in the category of geniuses who had an infinite capacity for giving pains. And I'd include under this head all those rascals who invented saveloys, frankfurts, black puds, garlic sausage, pork allemong, white puds, piebald dittos, and all other "bags of mystery."

Personally speaking, I'm in favor of feedng all makers of these iniquitous inventions on their own gastronomic atrocities till they become extinct.

A man who eats more than two saveloys simply demonstrates the triumph of Hope over Experience. But he continues to inflict pain on himself because the contents of his own skin are just as mysterious to him as the mysterious conglomeration he chews up "skin an' all."

Talking of sausages reminds me that one of the most entertaining battlers I've ever met was once a butcher. Not that he ever butched anything. Oh, no—he was too softhearted even to kill the flies in his shop like a lot of other so-called butchers I've met.

I think I'd class him as a sort of super-genius, as he has invented a super sausage which has the capacity of preventing onyone who eats one daily from getting pains.

When I called on him last week on his block at Red Cliffs he showed me some samples, in fact, I had one for dinner and it certainly was superlative.

Before I "wired in" I took the precaution to ask "What's in it, Brother Smut?" It would have done you good to hear the voice of ex-butcher Smith (late A.S.C.) thrill with pride.

"My own invention," he said, "and what is to be known before long throughout the whole civilised world as 'Smith's Famous Raisin Sausage,' and the slogan (to be translated into fifteen languages, including Volapuk and Esperanto) is going to be 'Smith's Bag o' Vits.'"

"Vits?" I said. "What's that?"

"Aha, my boy, that's the most important part of the whole business. (I'd evidently started this battler on his pet theme.)

"Vits" is short for Vitamines, and my Raisin Sausages, made from eleven Crown Lexias, are chock full of 'em. And don't you forget it." (Here he banged the table and shook two fingers at me.) "I'm doing two of the biggest things in my life by producing this marvellous dietetic wonder of the age—for this is the age of saus, isn't it? The Raisin Sausage, my Boy, and my product will vitalize humanity. Within that little 'Bag o' Vits' is a gastronomic dynamo that will electrify the jaded digestions of city men, char-ladies and—

"Wait a bit, Brother," I interrupted. "What's the second 'big thing' you were going to tell me about?"

"Oh, that's something I want you to keep under your hat," he replied mysteriously.

"These new Boards want me to export my Lexias at a loss—not for mine. I'm going to beat 'em with this same sausage."

"But how can I tell your marvellous Vitalizers from the ordinary kitchen variety on the market?"

"That's a trade secret," replied Brother Smut, "that I'll tell the world when the time comes. F'rinstance, take three ordinary meat sausages, put 'em side by side on the table and whistle softly. If they roll off the table, they're dog meat. Now put 'em end to end in a row and pull the front one away—if the other two move up—they're cab-horse."

"Astounding. And yours?"

"Mine, my Boy, have the aroma of a ripe squashed muscatel surrounding 'em like an aura. A yard of my "Bags o' Vits' hanging in a shop would perfume the whole place."

I shook this battler by the hand and told him as I left that I felt his name would go down to posterity as his sausage would go down with the public, as two things associated with the greatest uplift campaign the dried fruits industry had ever experienced.



S. A. CHENEY MOTORS PTY. LTD., 22 Flinders Street.

# The Fruit Trade

*Market Reports and News Items.*

**REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS,**

**Advertising in this Journal.**

**NEW SOUTH WALES.**

**Sydney.**
Chilton, F., City Fruit Markets.
Greenberg, S. & M., Fruit Markets.
Louey Pang & Samuel Wong Ltd., Thomas St., Haymarket.
Rogers, F. H. G., Fruit Exchange.
Rule & Beavis, Fruit Exchange.

**VICTORIA.**

**Melbourne.**
Coastal Farmers' Co-op. Society, Western Market.
Colombie, H. G., 115 Hotham St., East Melbourne, see advt. xvi for list of representatives.
Davis, J., Western Market.
Lister, G., Western Market.
Millis, A., & Sons, Western Markets.
Mumford, J. G., 449 Flinders Lane.
Pang & Co. Ltd., H. L., Little Bourke Street.
Silbert, Sharp & Davies, Western Markets.
Stott & Son, T., Western Markets.
Tim Young & Co., Western Market.
Vear, F. W., 49 William Street.
Wade & Co., H. M., 471 Flinders Lane.
Woolf, G., Western Market.

**QUEENSLAND.**

**Brisbane.**
Barr, A. S., Fruit Exchange.
Collard & Mackay, Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Finlayson & Son, Fruit Exchange.
Geeves, H. V., Fruit Exchange.
Robsons Ltd., Fruit Exchange.
W. J. Whitten & Co., Fruit Exchange.

**TASMANIA.**

**Hobart.**
Jones & Co. Ltd., H., Fruit Exporters.
Peacock & Co., W. D., Fruit Exporters, and at London.
**Launceston.**
Bender & Co., 110 Elizabeth St.

**NEW ZEALAND.**

**Auckland.**
Radley & Co. Ltd., Fruit Auctioneers.
Turner & Growers Ltd., City Markets.
**Dunedin.**
Co-operative Fruitgrowers' of Otago Ltd.
Paterson, Thos., & Co., Vogel Street.

**ENGLAND.**

**London.**
Da Costa, Gerald, Floral Hall, Covent Garden.
Isaacs & Sons Ltd., M.
Jacobs, E., & Sons, Covent Garden
Joel, R., & Sons, 16, 17, 20 Russell St., Covent Garden.
Margetson & Co. Ltd., Covent Garden.
Monro, Geo., Ltd., Covent Garden.
Pask, Cornish & Smart, Covent Garden.
Poupart, T. J., Covent Garden.
Ridley, Houlding & Co., Covent Garden.
Springer, Barney, 12 Russell St., Covent Garden.
Swann & Co., 3 Salter's Hall Court.
**Hull.**
Shaw, B. & J.
White & Son Ltd.
**Liverpool.**
Adam, James, Son & Co., 1 Temple Court.
MacGeorge & Jardine.
**Southampton—**
**Manchester.**
North of England Fruit Brokers Ltd., represented by N. V. Wade, 8 Bridge St., Sydney.
**Newcastle-on-Tyne.**
B. & J. Shaw.
**Bristol.**
Bristol Fruit Brokers Ltd.

**SCOTLAND.**

**Glasgow.**
Russell, Turnbull & Co.

**IRELAND.**

**Belfast & Dublin.**
Connolly, Shaw & Co. Ltd.

**WALES.**

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Algemeene Vruchten Import Maatschappy.
Astheimer, P. H., & Son., Fruchthof.
Lutten, J. H., & Co., Hamburg.
Stier, Aug., Fruchhof, Reps. J. B. Mills & Co., 9 Queen St., Melbourne.

**HOLLAND.**

**Amsterdam.**
Algemeene Vruchten Import Maatschappy, De Ruyterkade, 39/40, also Rotterdam.

## British and Australasian Market Reports.

### AUSTRALASIAN FRUIT IN ENGLAND AND THE CONTINENT.

**Cabled Reports.**

**London.**

Review of cables received from Mr. H. G. Colombie, representative for Messrs. M. Isaacs and Sons Ltd.:—Ex the **"Themistocles."** — Cleos., 17/6; others, 14/- to 16/6. **New Zealand** Apples ex **"Waimana,"** 14/- to 15/6. Ex the **"Ferndale."**—Jons., 12/6 to 16/- (mostly 13/6 to 15/-); Five Crowns, 14/- to 15/6; Dunn's, 14/- to 15/-; Cleos., 15/6 to 17/6. **New Zealand** Apples ex the **"Ionic"** were Jons., Davids, 13/- to 16/-; C.O.P., 14/6 to 20/-. Pears ex the **"Barrabool"** were Bosc, 19/6 to 20/-; half boxes, 9/6 to 12/-; Josephine, 8/3 to 12/6; Vicars, 6/- to 8/-; Glou Morceau, 6/3 to 9/-; B. Clairgeau, 19/- to 25/-; half boxes, 9/9 to 10/-; Keiffers, 5/3 to 6/6. **South Aust.,** trays of Josephines, 6/6 to 7/-. **Vic.** Apples, Jons., 14/6 to 15/6; F.C., 13/6 to 15/-; **West Aust.,** Cleos., Dunn's Favorite, 17/- to 20/-; Jon., Romes, 13/6 to 17/-; Dunn's Seedlings, 14/6 to 18/-. **Tasmanian,** ex **"Barrabool"** and **"Barambah."**—Cox, 16/- to 20/-; R.P., Alf., St.P., S.P.M., D.S., 14/6 to 16/6; A.P.M., 15/6 to 16/-; W.P.M., 14/- to 17/6. There was a good demand for fruit ex **"Boorara," "Oronsay," "Ceramic"** and **"Moreton Bay."—West Aust.** Cleos., 15/- to 20/- (mostly 17/6 to 19/6); Jons., 14/- to 18/- (mostly 15/- to 17/-); Dunn's, 16/- to 19/-. **Vic.** Jons., 13/- to 16/6 (mostly 14/- to 16/-); Dunn's, 16/- to 19/-. **Vic.** Jons., 13/- to 16/6 (mostly 14/- to 16/-); Dunn's, 17/- to 18/-; Crowns, L.P., 14/- to 16/-. **South Aust.**—Cleos., 16/6 to 19/-. **Tas.**—C.O.P., 12/6 to 21/-; Cleos., 13/6 to 18/-; Sturmers, 12/- to 17/6; Jons., 13/6 to 15/6; F.C., Alf., 13/6 to 16/6; Pears, 2/6 to 7/- tray (mostly 3/- to 4/-).

* * *

**London** (25/5/25).

Capt. H. Dakin, Australian representative for Messrs. Geo. Monro Ltd., London, advises having received per cable the following prices:—

**"Ulysses."** — Alex., 14/-; Mobbs, 15/-; Ribs., 14/- to 15/6; Alf., 15/6 to 16/-; Cox, 18/- to 22/-. **"Asphalion,"** Jons., Shorelands, 14/-; Reinettes, 12/- to 15/-; Dunns, 16/6 to 18/-. **West. Aust.**—Jon., 16/- to 18/-. **"Themistocles."**—Jon., 14/- to 16/-; London Pip., 14/- to 15/- **"Ferndale."**—Jon., 12/6 to 15/6; London Pip., 14/6; Dunns, 15/- to 16/6. **"Barrabool."**—Jons., Ribs., 14/6 to 16/6; Clarence, 14/- to 15/-; Alf., 16/-; Cox's, 16/- to 20/-; Cleos., 16/- to 18/6; Pears., Cole, 12/-; trays, 5/- to 6/-; Bosc., 6/- to 11/-; half-cases, trays, 7/-; Packhams, 8/- to 10/-; half-case; **West Aust.,** 9/- to 15/- per case for Keiffers and 25/- Comice. **"Port Darwin."**—Dunns, 17/- to 18/-; Cleos., 18/6 to 19/6; Grapes, 16/- to 18/-; Pears, Josephine, 16/- to 18/-; half cases, 10/-; Keiffer, 7/- to 9/- half case. **"Boorara."**—Wellingtons, Munro's, London Pippin, 15/- to 16/6; Jon., 15/- to 17/-; Cleos., 17/- to 19/-; Cox's, 17/- to 20/-; Pears, Winter Cole, 8/- to 9/- half case; Comice, 6/- to 8/-; Bosc, 5/- to 7/- per tray. **"Barambah."**—Cleos (spotted), 15/- to 18/-; Jons., 16/- to 16/6; Wellingtons, 15/- to 16/-; Cox's, very poor, cooked, 5/- to 9/- half case. **"Oronsay."**—Jons., London Pippins, 15/- to 16/-; Sturmers, 16/- to 17/-; Clarence, 14/-; Scarlets, 16/-; Cleos. (spotted), 14/- to 14/6. **"Moreton Bay."**—Scarlets, Sturmers, 16/- to 17/-; Jons., Five Crown, 15/- to 16/-; Cleos. (spotted), 14/- to 16/-; Pears, wasty.

* * *

**London** (7/4/25).

Mr. Gerald DaCosta, Covent Garden, reports under date 7/4/25, as follows:—

**Australian Fruit.** — Apples, Cox's, 25/- to 40/- per box; Cleos., Dunn's, 17/- to 20/-; Jons., 17/- to 21/-; Munro's, 17/- to 19/-; Pears, Beurre D'Anjou, 22/- to 28/-; Williams, 10/- to 18/- half box; others, 15/- to 23/-. Grapes, **West Aus.,** Santa Paula, 16/- to 20/-; Gros Colmar, 18/- to 22/-; others, 15/- to 18/6. **Canadian** Apples —Ben Davis, 30/- to 35/- per barrel; others, 18/- to 32/-. **American**—Albemarle Pippins, 42/6 to 50/-; Ben Davis, 28/- to 35/-. **South African** —Pears, Comice, 7/6 to 12/- per box; Bosc, 5/- to 6/-; Keiffer, 3/6 to 4/-; others, 3/6 to 6/-; Grapes, Gros Colmar, 14/- to 16/- per 10 lb. box; others, 6/- to 15/-; Plums, 6/- to 10/-. **Spain**—Oranges, 12/- to 17/-; better grades, 18/- to 35/-.

* * *

**Hull** (18/5/25).

Mr. H. G. Colombie reports having received from Messrs. B and J. Shaw,

Hull, the following cable:—"The Apples by the **"Moreton Bay"** met with a strong demand, Cleos. and N.Y.P.'s realising 19/- to 21/-; Jons., 15/- to 18/3 (mostly 16/- to 17/6); D.F., M.F., L.P., 17/- to 18/3; other varieties, 15/6 to 17/6.

* * *

**Liverpool** (20/5/25).

Mr. H. G. Colombie, representative for Messrs. MacGeorge and Jardine, Liverpool, advises having received the following cables:—

The Australian Apples ex the **"Aeneas"** realised—Cleos., from 18/- to 21/6; Jons., 15/- to 20/-; Munro's, 17/- to 19/9; London Pippin, 16/- to 18/6; Rome Beauty, 16/- to 18/3.

* * *

**Liverpool** (22/5/25).

**"Aeneas," "Boorara."** — Cleos., N.Y.P.'s, 16/- to 21/6; L.P., 15/- to 16/6; Jons., 15/- to 17/-; A.P.M., 14/- to 17/6; Crabs, 15/- to 18/-; Ribstones, 14/- to 17/6.

* * *

**Liverpool** (25/5/25).

A few parcels ex the **"Ceramic."**—Cleos. realised from 17/- to 21/-; Crabs, 16/3 to 17/-; Del., 17/- to 18/-; Tasman Pride, 17/- to 17/9; Jon., 15/- to 17/9; Aus. Grapes, 16/-; Pears, 20/-.

* * *

**Ireland.**

Mr. Colombie advises having received a cable from his Belfast principals, Messrs. Connolly, Shaw and Co. Ltd., advising that some Tasmanian Cleos., transhipped ex **"Aeneas"** were auctioned at from 20/- to 21/- per case.

* * *

**Holland.**

**Rotterdam** (11/4/25).

Messrs. Algemeene Vruchten Import Maatschappy, Amsterdam, report prices realised at Rotterdam for transhipment from London of Australian fruit was:—

**Vic.**—Cleos., 19/- to 20/9; Jons., 19/6 to 20/9; Dunn's, 18/3 to 18/9; Munro's, 18/9 to 19/6; others, 17/- to 18/3.

* * *

**New South Wales.**

**Sydney** (21/5/25).

Mr. F. Chilton, City Fruit Markets, reports 21/5/25, as follow:—

Queensland Fruits.—Bananas, 12/- to 22/- per case; Pines, 12/- to 18/-. New South Wales Fruits.—Bananas, 12/- to 22/- per case; Lemons, 4/- to 7/- per bushel case; Oranges, common, 4/- to 7/-; Navel, 8/- to 11/-; Mandarins, Emperor, 7/- to 11/-; Thorny, 3/- to 6/- per half case; Quinces, 4/- to 7/- per bushel case; Apples, Jonathan, 8/- to 11/-; Rome Beauty, 6/- to 11/-; F.C.P., 4/- to 9/-; Granny Smith, 10/- to 13/-; Pears, Packham, 6/- to 12/-; W. Cole, 6/- to 10/-; W.N., 6/- to 9/- Passions, 5/- to 11/- per half case; Persimmons, 2/- to 4/- Tomatoes, 5/- to 14/-; Grapes, Black Cornichon, 7/- to 10/-; White Ohanez, 6/- to 10/-; Black Muscat, 6/- to 11/-; White Muscat, 4/- to 8/-. Victorian Fruits.—Apples—Rome Beauty, 7/- to 10/- per bushel case; King David, 7/- to 10/-; Jonathan, 8/- to 11/-; Cooking varieties, 4/- to 9/-; Pears—B.B., 6/- to 9/-; Howell, 5/- to 7/-; M.L., 6/- to 10/-; Quinces, 4/- to 7/-. Tasmanian Fruits.—Apples—T.P., 8/- to 10/- per bushel case; D.C., 7/- to 10/-; Jonathan, 8/- to 11/-; F.C., 8/- to 11/-; S.P.M., 7/- to 10/-; W.C., 4/- to 7/- per half case; W.N., 3/6 to 6/-; Nap., 4/- to 6/- per bushel case.

The demand for fruit generally is quiet, and as colder weather may be expected soon, not much improvement is likely for some time. Consignments of Apples and Pears have been fairly light recently, and prices in consequence have improved.

* * *

**Victoria.**

**Melbourne** (30/5/25).

Apples, eating, choice, 6/- to 9/- per case; others, 3/- to 5/-; cooking, 3/- to 5/-; Pineapples, Q'land, 16/- to 22/-; Bananas, 18/- to 24/-; Grapes, Muscatels, 8/- to 10/-; Ohanez, 12/-

(continued on Page xvi.)

**Lemons Wanted**

Quotation Per Ton.

Apply Box No. 11,
Post Office,
North Melbourne, Vic.

## Classified Advertisements.

**Wanted and For Sale.**

Advertisements under this heading, which cannot exceed one inch, will be classified as far as possible.

**Prices are as follows:—**

Casual Advertisements, one or three months—9d. per line of six words. Nine lines to the inch.

Contract Advertisements, six or twelve month, 6d. per line of 6 words, 9 lines to the inch.

Send cash with order.

**FOR SALE.**

EXTON Late Prolific Raspberry Canes, also Filbasket and Thornless. Particulars,
CHARLES EXTON & SONS,
"Wentwood,"
Kinglake, Vic.

DONCASTER Spray Pump, in first-class order. Will sell at half price.
Apply "DONCASTER,"
C/o "Fruit World."

TRACTOR Plough, Harvey 3-furrow; very little used, splendid order. Cost £56. Will sell for £36, free on rail, Oakleigh. Apply Elinora Orchards Company, Wheeler's Hill.

**LEMONS.**

We are the Largest Buyers in Australia.
PROMPT SETTLEMENTS.
**C. M. BROOKE & SONS**
73 Whiteman St., South Melbourne, Vic.

**FRUIT SHIPMENTS —— TO NEW ZEALAND**

**Dunedin (N.Z.) and South Seas Exhibition**

**REILLY'S CENTRAL PRODUCE MART LTD., DUNEDIN**
advise Growers of CHOICE FRUITS to ship to Dunedin.

**REILLY'S** anticipate an increased demand for all lines of choice Fruit arriving on this market between the months of September, 1925 and May, 1926.

**REILLY'S** offer Fruitgrowers their faithful service and will be pleased to advise Fruit Shippers the probable prices available and prospects of making suitable sales.

Cable or write to **Reilly's, Dunedin.** Codes used—BENTLEY'S, MARCONI'S, WESTERN UNION, A B C 5th & 6th Ed.

—— **REILLY'S GUARANTEE FAITHFUL SERVICE TO ALL CONSIGNORS.** ——

# CHEAP TREES

**CANNOT** *be purchased at the "BALHANNAH NURSERIES," but large quantities of Highest Quality Fruit Trees in all Leading Commercial Varieties can, and at the* **Cheapest Price** *consistent with their quality. Every tree in these nurseries receives continuous and individual attention by experienced men for nearly two years before despatch.*

Not Cheap but well worth their price. This quality is Planters' Protection.

*ENQUIRIES SOLICITED*

**BALHANNAH DECIDUOUS NURSERIES**

**BALHANNAH, S. Aus.**

# The Ellis Fruit Grader

**PERFECT GRADING** **NO BRUISING**

In the Ardmona district (Vic.), one of the biggest stone fruitgrowing areas in Australia, the growers, almost to a man, have installed this Grader. Why have complicated machinery when the Ellis Grader is absolutely foolproof and weather proof, and will **easily do 1,000 bushels per day.**

This is not an Orange Grader only, but **will do all Fruits** equally well. See Testimonials for Lemons, Pears, Apricots, Peaches, Plums, Apples, Oranges. A woman or child can work and manage it, and yet some of the **Largest Packers** in the Goulburn Valley and Mildura have installed them.

Listen to this—We estimated that after having put through the first 1,000 cases of Apricots, the **saving in labour had more than paid for your Grader.**

We are so sure that the machine will give entire satisfaction that we are **prepared to send out on Trial.**

**Book early,** before the rush of **the season** to ensure **prompt delivery.**

**Price, £16/10/- nett. Table and Hopper (complete), £21/10/-, F.O.B. Terms if desired.**

**We are Distributors of the British Wonder Car--The "Arrol-Johnston"**

*Write for particulars.*

**ELLIS GRADER & MOTOR CO., 226 Flinders Lane, Melbourne**

**Colonial and Interstate Agents:—Queensland,** Sthrn. Q'land Fruitgrowers' Assn., Roma St., Brisbane. **Sth. Aus.**—Premier Machinery Co., Morphitt St., Adelaide. **New Zealand**—A. Simmonds Ltd., Heretaunga St., Hastings. **South Africa**—Oswald Bros., Cape Town.

**ESTABLISHED 1891**

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**FRUIT BROKER,**

**Fruchhof, HAMBURG**

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*Consignments Solicited*

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**J. B. MILLS & CO., 9 Queen St., Melb.**

*Tasmanian Representatives:*

**SILBERT SHARP & DAVIES**

**Clyde Street, Hobart, Tasmania**

*Reliable Representatives wanted for the other States.*


## NEW METHOD OF STORING GRAPE FRUIT.

While Grapefruit is to be had nearly all year round in Porto Rico, yet there are times when it is scarce and high in price, states Mr. J. B. Milgram in "Packing House News." For three years the Department of Agriculture has been making a study of storing this fruit for use when it is not abundant. The method followed has been to pack the fruit in sand, sawdust or cocoanut fibre. For this purpose the fruit should be picked when in its prime, but before becoming too ripe. The fruit should be cleaned of scale as in preparing it for market. It should be stored under cover in order that the moisture can be controlled, as some that was tried outdoors was damaged by rain increasing the amount of rot and causing the seed to sprout in the fruit. The packing material, either sand, sawdust, or cocoanut fibre, should be slightly moist. If the material is dry, the fruit will lose moisture and shrink.

In its experiments the Department of Agriculture also kept fruit in a moist chamber where the humidity was under control. In the same room fruit was stored in cocoanut fibre.

At the end of six months the fruit in the fibre was in good condition but that outside in the moist chamber had shrunk.

The object of the moisture in the packing material is particularly to keep down shrinkage. On the other hand, if it is too moist there are changes brought about in the fruit and the seed is apt to sprout.

Cockroaches did some damage to fruit in open and also in dry and moist cocoanut fibre. Rats are also fond of Grapefruit and where it is stored it should be protected from these rodents.

Of three varieties, Pernambuco showed the best keeping qualities, Marsh seedless second, and Duncan last. Both Duncan and Pernambuco retained their quality better than the Marsh seedless. On the other hand, the Duncan was seldom found with sprouted seeds.

After the fruit is put down it should be gone over after the first two weeks and the rots removed. Later, from time to time, it should be carefully looked into and any unusual number of bad fruits taken out. Many lots of fruit were kept with very few rots. The longest period of storage was fourteen months, but after the end of the fifth month the losses were heavy.

As a result of its work the department has recommended these methods of storage to those persons in Porto Rico who desire to carry Grapefruit through the season when it is scarce.

Dealers were also advised to try these methods of storage for citrus fruit when they are overstocked or sales are slow.—Newton and duToit's "Export News."

# ECHUCA: The Gateway to the Riverina.

## One of Victoria's most Productive and Prosperous Districts

The Victorian Fruitgrowers' Convention held at this Inland Port was most successful.

IT was a happy circumstance which decided on Echuca being the place for the holding of the 29th Convention of the Victorian Fruitgrowers' Central Association. To many delegates it was the first occasion of viewing the river Murray. Therefore, there was particular pleasure in enjoying the trip twelve miles up stream in the paddle steamer "Melbourne" to where the waters of the Goulburn River join those of the Murray.

Echuca is admirably situated for conference purposes, the town being well served by railways from Melbourne, as well as from the Goulburn Valley, in addition to the fact that roads radiate to all points of the compass into prosperous agricultural centres.

Apart from its road, rail and river facilities, and the town being so prettily and conveniently situated, much interest is centred in the fact that there is an abundance of productive land in the immediate vicinity as well as in the far flung districts of which Echuca is the natural centre. Whether it be in the production of wool, wheat, fat stock, fruit, tomatoes or market garden produce, Echuca will always command an important position.

In addition therefore, to Echuca's (1) central position for conference purposes, (2) its productiveness, there yet remains a third picture of outstanding interest, viz. its glorious winter climate. When the last named feature is more fully recognised Echuca will attract visitors from all districts south of the Dividing Range to enjoy the genial winter climate of this productive inland port.

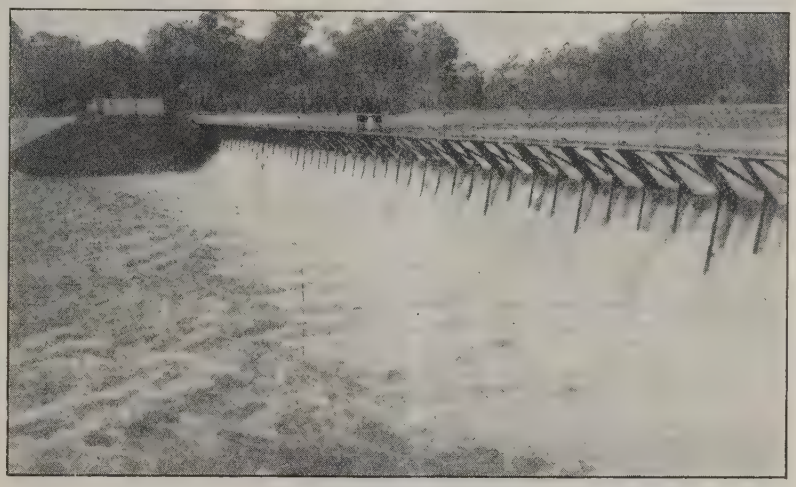
Echuca was founded by Henry Hopwood in 1853, and is situated on a narrow peninsula formed by the confluence of the Murray and Campaspe rivers which meet in a large natural reserve known as Victoria Park, where there stands a monument dedicated to Mr. Hopwood. Echuca's progress and development commenced with the extention of the railway line from Bendigo in 1864, and the opening of the railway gave an immense impetus to the river trade which ultimately led to the town becoming the second port in Victoria.

### Railway Development.

The further development of the Riverina railways means a still brighter future for Echuca at which point the Riverina railways converge. These new railways are being constructed by the Victorian Government on the standard gauge used in that State. The line has been established for many years through Moama and Mathoura to Deniliquin. A new line is in course of construction connecting Echuca and Moama with Balranald (140 miles distant). This line will serve over a million and a quarter acres of fertile wheat lands through which it passes.

The railway revenue of Echuca now stands at £100,000, having been increased by £10,000 during the past twelve months. In the same period 73,735 tons of goods were handled by boat and rail. Four railways converge at Echuca, and 12 trains arrive and depart daily.

Although railway development has produced a great deal of the river trade, there are still some twenty steamers and barges which discharge their cargoes at the Echuca wharf. Steamers are sent all the way from South Australia laden with wool, and as many as 90,000 bales have been handled in one season, but 60,000 bales is stated to be the average season's production.



By means of Weirs and Locks the River Murray is being made navigable throughout the year and water is conserved for Irrigation

*This is the Torumbarry Weir and Lock near Echuca, Vic.*

### The Murray River.

The construction of weirs and locks under the Murray Waters agreement will provide a thousand miles of permanently navigable river from Echuca to the mouth of the river in South Australia. The Torumbarry Lock, fifteen miles from Echuca is fully completed, and in operation. Because of this fine piece of engineering work there was considerably more water in the Murray in Echuca than was the case before the lock and weir were in existence. The whole scheme will cost some £8,000,000, the cost being borne by the Commonwealth Government and the Governments of N.S.W., Victoria and South Australia.

The red gum industry is still flourishing, the logs being brought by barges to Echuca where they are handled by two large sawmills.

THE LEADING BAKER
AND CATERER

E. P. SUTTON

HARE STREET,
ECHUCA, Vic.

Try our Block Cake
IT'S GOODNESS ITSELF

Sutton's Block Cake has become very popular with all who have tried it. It contains only the purest ingredients and is baked to a delightful flavor in our electrically heated and hygienic ovens.

WEDDING CAKES A SPECIALTY.

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FERGUSON'S

STATIONER & BOOKSELLER
*Carries the little lines that count.*

Studs, Sleeve Links, Soaps, Face Powders, Shaving Requisites. Toys and Fancy Work

*The Shop to Save Money*

TRUST MONEYS TO LEND

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*Barristers and Solicitors*

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Five Motor Garages for Convenience of Visitors

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Good Accommodation ∴ Excellent Meals

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. . HOTEL . .

Warren Street, Echuca

Electric Light Throughout. Garage for Cars

E. T. SLATTERY, Proprietor.

On glancing at the map, one is led to understand that the Murray marks the dividing line between Victoria and New South Wales, but a visit to Echuca establishes the fact that instead of denoting a division, this noble stream forms from a connecting link between the two States named, and joins up South Australia in its beneficent service. The Murray and its tributaries in reality serve one-third of Australia. This was finely stated by the Mayor of Moama, Alderman L. S. Martin, who came across to do honor to the visiting fruitgrowers during their recent conference at Echuca. Mr. Martin said that border jealousies had vanished long ago, and he expressed the opinion that the country known in large terms as the Riverina, should really be in the State of Victoria. Moama for instance was only 140 miles from Melbourne, and 500 miles from Sydney.

### Irrigation.

Echuca is well provided for in the matter of irrigation. The Murray waters are available for this purpose by means of private pumping outfits. Then there are the waters of the Campaspe, whilst in addition the district



*Post Office, Echuca.*

is served by channels from the Waranga Basin in the Goulburn Valley. The construction of the State Rivers and Water Supply Commission's channels caused a great extension of the wheat belt which cuts through the Echuca district and vastly increases productivity amongst all cereals. Irrigation gave a much needed impetus to the orchards and mixed farms in the neighborhood. Small farms sprang up and prospered. Citrus groves in the district are equal to those in any other part of the State.

Under the direction of the Closer Settlement Board the huge Cornelia Creek property was cut up and more than 40,000 acres were sub-divided into farms which varied in size from 40 to 100 acres. The quality of the land is excellent; the settlers fatten stock for local and export market, grow fodder and many varieties of fruit, and conduct other agricultural pursuits. Other large estates have been similarly cut up, both on the New South Wales and Victorian sides of the Murray.

The land around Echuca is some of the most fertile along the Murray Valley. Fodder crops (lucerne in particular), grow to perfection. The wheat yield averages annually 1,275,000 bushels, whilst over 100,000 cases of tomatoes are sent away annually to the metropolis.

### Market Gardens.

The Echuca district can supply the Melbourne market With Tomatoes, Beans, Celery, and other market garden produce. The growers receive satisfactory returns owing to the fact that such produce comes in much earlier than from metropolitan districts. There are abundant evidences



*Scene in Victoria Park, Echuca.*

that local producers are prospering in their enterprise. It would appear that there is a distinct opening for the production of Strawberries, small fruits and flowers, all of which come in at a season much ahead of the supplies from the districts now serving the metropolis.

Main roads from Echuca connect in Victoria with Rochester, Elmore and Bendigo to the south; with Kyabram, Tatura and Shepparton in the southern Goulburn Valley; with Nathalia, Numurkah and Tocumwal (N.S.W.), in the northern Goulburn Valley; with Bamawm and Lockington, with Mitiamo and western Victorian towns, with Gunbower, Cohuna, Kerang, Koondrook and Swan Hill, and in New South Wales with Mathoura, Moama, and Deniliquin, with Jerilderie and Finley, with Barham, Moulamein and Balranald.

Echuca has been aptly termed the "gateway to the Riverina." The fact that it is the centre of great fertility with a vast and productive back country, now proclaim its present and future prosperity.

Echuca has established a name for fat cattle, fat sheep, fat lambs, fat pigs. Many hundreds of thousands of these are primed annually. It is one of the best stock centres in Victoria.

### Echuca Town.

Echuca is 130 miles from Melbourne by road and 144 by rail. The town is up to date with educational facilities.



*Wool Barges on River Murray, Echuca.*

There are State, High and Technical Schools, also a Convent. The town is lit by electric light, and the hotels and many private residences have their own system of sewerage. Social facilities are not overlooked, there being provided golf links, bowling greens, grass tennis courts, etc. The streets are improved by the planting of

TRAVELLERS, TOURISTS & OTHERS
A Cordial Welcome is extended to you by the
COMMERCIAL HOTEL
C.T.A. HOUSE
High Street, - - Echuca
First-class Accommodation. Moderate Tariff
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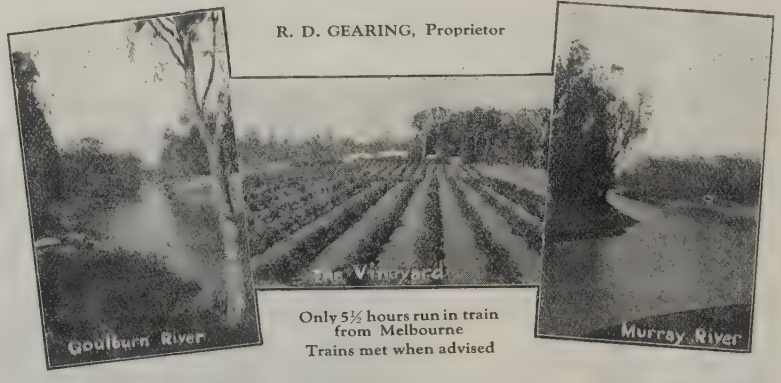
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Special Attention to Country Orders

CAPE HORN VINEYARD, Stewart's Bridge, ECHUCA
*"The Riviera of Victoria"*

Farm
Dairy
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Orange Grove
Etc.
overlooking
the
**Murray River**
and close to
**Goulburn**
9 miles from
Echuca.




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**WONDERFUL WINTER CLIMATE.** In this restful "home away from home" you can enjoy all the ruggedness of the natural Australian bush, combined with beautiful river and lagoon scenery, with its placid reflections. This well-known guest house is one of the most popular resorts in the Murray Valley.

*Enquire Government Tourist Bureau for first hand information and pamphlets.* **"Cape Horn" for your next holiday. Book Early.**

date palms and grassy lawns. £100,000 has recently been spent in new houses. The Savings Bank deposits total £240,000 and there are branches of four other banks.

**Land Values.**

Land values in Echuca are not inflated. Wheat land which is producing under proper culture from 18 to 20 bushels is still obtainable at £5 to £10 per acre—according to the situation. High quality, richly timbered land is obtainable at about £12 per acre. These values apply to the non-irrigated areas. In the irrigated sections the values depend largely on improvements, but a reasonably improved irrigation property which is sown down in lucerne can be purchased at under £30 per acre.

**Conclusion.**

The prosperity of Echuca is assured. Already much has been achieved as the foregoing abundantly demonstrates. Because of its unique central position (and withal its handiness to the city, for one can catch the early train to town, spend a day at business and be back the same night); its fertile plains, abundant water supply and genial climate, it is forecasted in unmistakable terms that Echuca has a future of great importance and prosperity.

## CAPE HORN VINEYARD.

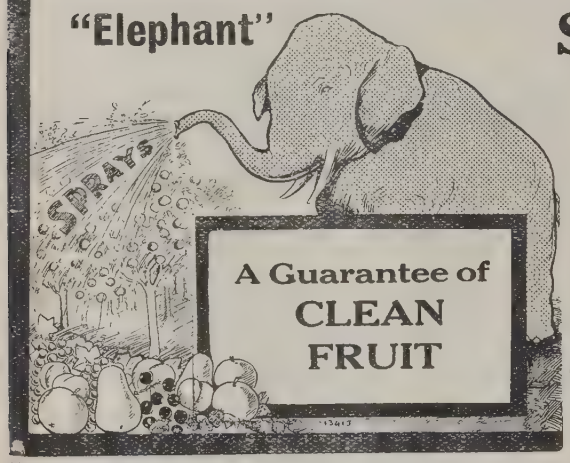
The Cape Horn Guest House at Stewart's Bridge, near Echuca, is favorably known to tourists, because of its congenial winter and summer climate, sporting facilities, abundance of fruit and generally the excellence of the management. Within three miles of the house there are more than 20 miles of Goulburn and Murray River frontage, 10 miles of lagoons, and several creeks which offer sporting opportunities hard to rival. The winter climate is equal to anything Queensland has to offer; the Murray valley is rapidly becoming the holiday resort of the people of the south, it is akin to the famous Riviera in the South of France—it is the Riviera of Australia.

In summer angling as a sport reigns supreme. Business men desiring a rest after a busy season will find "Cape Horn" the very thing they are looking for. For those so inclined, there are facilities for shooting, boating, fishing, tennis or tramps in the bush country. Full information regarding this ideal winter or summer resort is obtainable from the Government Tourist Bureau, Melbourne, or from the proprietor, Mr. R. D. Gearing, Cape Horn, Stewart's Bridge, via Echuca, Vic.

**Acknowledgment.**—The photos. for the front cover of this issue were taken by Mr. Grimwood, photographer, High-street, Echuca.

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*in*
*Echuca or District*
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Prevents Growth of, and also destroys Scales, Woolly Aphis, Red Spider, &c.
Now is the time to order "ELEPHANT" BRAND RED OIL

Spray early to bring out blossoms early on late varieties of Apples and thus avoid ravages from thrips.

"Elephant" Brand Prepared Red Oil contains only the best lubricating oils and forms a nice emulsion. Also stays on the trees for a considerable time.

# LIME SULPHUR SOLUTION
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**Spreader, Atomic Sulphur, Bordeaux, Sulphur, Weed Killer, Macclesfield, Bluestone, Etc. Etc.**

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Representing the Deciduous, Citrus and Dried Fruits Industry of Australasia.

Published the First of each Month.

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## EDITORIAL CHATS.

The usual annual session of the Australian Conference of Fruitgrowers was not held in Brisbane in the autumn just passed, one reason being that it was understood the meeting of the Australian Fruit Advisory Council was to be shortly held in Melbourne. The Council met in May last year. Now May and June have passed and no meeting has yet been announced.

Regrets are now expressed that the Australian Conference of Fruitgrowers was not held as usual, and it would appear that the need exists for the growers to have their own organisation adequately financed to deal with matters relative to the industry.

The good prices received for this season's fresh fruit export have given new heart to growers in all the States.

* * *

It is a great pity that the shipment of 6,476 half-cases of Williams Pears under Government auspices failed so badly. Credit must be given to the Government for encouraging the shipment by carrying all the expenses, leaving the growers only to supply the fruit; but this only makes more inexplicable their action in failing to follow the blazed trail.—Fourteen years ago growers knew it was a commercially sound proposition to export Williams Pears under "Somerset" conditions, some essential details of which are (1) all Pears to be precooled a week prior to shipment, and (2) a mean temperature on the voyage of 30 degrees. In the light of this knowledge—which has been previously published in these columns—it is difficult to understand why there was failure to precool all the fruit for the necessary time, and why the voyage temperature was 34 degrees (if the report regarding this temperature be correct.)

Why was the shipment termed "experimental"? The experiment was made as long ago as 1911, and has been consistently demonstrated many times since, not forgetting the present 1925 season, when "Williams" Pears from Doncaster and other places, sent under "Somerset" conditions, realised over 12/- per half-case.

Further reference to this matter will be found on pages 275-6, 290.

## IMPERIAL PREFERENCE.

### Ratified by House of Commons.

The Imperial Preference clauses in the British Budget dealing with Tobacco, dried and preserved fruits, and wine were adopted on June 1st in the House of Commons when an amendment against them was defeated by 277 votes to 93. Twenty labor members voted for preference compared with five last year.

## NEWS IN BRIEF.

A Bill has been drafted in South Australia providing for a compulsory orchard registration fee of 1/- per acre, but the Queensland "compulsory" system is not favoured.

Floods in Queensland have damaged the citrus crops in the North Coast region.

That the State Fruit Advisory Board does not hold the confidence of Victorian fruitgrowers was made clear at the recent Echuca Conference.

Favourable comments appeared in the Tasmanian press regarding the article in June "Fruit World" suggesting means for better organisation amongst the growers to conduct arbitration cases, and for bettering the industry generally.

Useful hints on pruning and planting deciduous and citrus trees are given in our Queensland Notes in this issue.

That Victorian fruitgrowers desire harmony in their trade relationship was evidenced by the fact that representatives of both the wholesale fruit merchants and the retail fruiterers were invited to conference at Echuca: both representatives attended and contributed to the discussions.

## STOP PRESS NEWS.

### Queensland Fruit Marketing.

### High Court Judgment.

**Brisbane, June 30.**

**The High Court of Australia unanimously dismissed, with costs, the appeal of the Committee of Direction of Fruit Marketing against the judgment of Mr. Justice Macnaughton in the Queensland Supreme Court.**

**The Queensland Supreme Court's verdict for the agents and growers against the Committee of Direction is thus confirmed, and growers must not be prohibited or hindered from consigning Bananas or other fruit to their agents in Queensland or in the other States.**

## CANADIAN TREATY CONFIRMED.

### Bill Passes Senate.

The treaty between Canada and Australia has passed all stages through the Canadian Parliament.

Both the Australian Prime Minister (Mr. Bruce) and the Treasurer (Dr. Page) have expressed the hope that both countries will mutually benefit by the new arrangements.

# Hybridisation and Cross Fertilisation of Citrus.

## Scientific and Practical Notes. Research Work Needed.

(By J. H. Agnew.)

### Foreword.

PRACTICALLY nothing is known of citrus in its early stages, but there seems to have been a berry known to the ancient Chinese, from which the present citrus varieties may have been derived. The earliest reference we have in the Old Testament is Leviticus 23-40, where the word "hadar" occurs. This has been translated as meaning fruit, and is symbolised to this day by the Jews in "The Feast of the Tabernacles," by a citron.

The bitter Orange was first mentioned by the Crusaders who went to Palestine.

The sweet Orange was not introduced to Europe until the Portuguese imported it from China in the 15th century. From there it was taken to Valencia in Spain. The Spaniards took it to America in 1701, but it was not until 1831 that Oranges were planted there as a commercial concern.

About 1860 some seedless Oranges were exported from New South Wales to America. These trees were of such poor quality that all worthless Navels have since been called Australian Navels. By improvements in breeding and selection, the citrus industry has rapidly progressed, until it has reached the position it is in to-day. The progress of the citrus industry during the last century, and the general improvement of varieties in America since 1831, and more particularly in Australia since 1860, is remarkable.

In 1818, Risso, an eminent Italian Botanist, published a history of the family, in which he enumerated and described 169 varieties of citrus, which he divided into eight classes.

Since then some varieties have been lost, owing to their useless features, and others have been brought forward. There is still a large number of useless varieties which ought to be eliminated still further, and replaced with new and better varieties. **"Improvement of Variety"** should be the aim of every one interested in citrus growing, and hybridisation and cross fertilisation are the means of attaining that end.

### Improvement of Citrus Varieties.

Much has been said about "bud selection" as a means of improving "type." Hybridisation or cross fertilisation is quite a distinct method of improvement, which gives a wider range of results. The genus citrus has so many varieties, possessing such a number of different characteristics, that an immense field of possibilities lies ahead of anyone interested enough to experiment.

A great deal of valuable work has been done in this direction in recent years by experimental work in plant breeding. With the amount of valuable knowledge gained, wonderful improvements could be made with citrus varieties.

Can we obtain a Valencia that would not turn green if left on the tree, an Orange that would not be affected by frost, an earlier Navel, or a tree that would be immune to red scale and other pests?

In Australia we have a few indigenous varieties, Citrus Australis, Citrus Australasica, and Citrus Indora. According to E. H. Benson, Director of Fruit Culture in Queensland,*:—

"Citrus Australis, the native Orange or Lime, is indigenous to Queensland, and is by no means uncommon in the native scrub. It grows into a large tree, having a diameter of 20 to 30 feet, and attains a height of 60 feet and more. It bears a thick-skinned aciduous fruit, which is of no value, but the tree is undoubtedly a good stock, and distinctly disease resistant."

Could not this tree, which is disease resistant, be crossed with one of our best varieties, to obtain a hybrid with the resisting qualities of the one combined with the good fruiting ones of the other?

The largest organised governmental plant breeding enterprise in the world is in the United States Department of Agriculture. The "Laboratory of Plant Breeding" is in charge of Dr. H. J. Webber, who has done much valuable work in citrus breeding.

Dr. Webber started on the production of frost-proof types of citrus in 1893, but the hybrids obtained were all lost by accident. However, he made a fresh start, and crossed the hardy trifoliata with the common sweet Orange, hoping to secure hybrids having the hardiness of the trifoliata, and the edibility of the common Orange.

Three good hybrids were obtained which form a distinctly new class of citrus fruits. They have been named "Citranges," and are called the Rusk, Willits, and the Morton. The young trees have endured a temperature of eight degrees above zero, and are valuable as a proof of the possibility of breeding a frost-proof Orange.

Another new group of citrus fruits bred by Dr. Webber is the "Tangelo," a cross between the pomelo and tangerine. One variety, the "Sampson" tangelo, has the loose skin of the tangerine, and is much sweeter than the pomelo. It is an interesting acquisition, and an excellent dessert fruit. Other varieties of the "tangelo" have not yet been named.

These few interesting hybrids show the immense possibilities of hybridisation in breeding new varieties. Before hybridisation is commenced, a knowledge of the flower and its composition is essential.

### The Flower.

First of all there is the blossom contained in three, four or five small green leaf-like structures which are called the "sepals," or collectively the calyx. Then there are four or five, often as many as eight, white showy petals, which constitute the corolla. Inside the corolla will be noticed a number of fine thread-like stalks surrounding one stalk thicker than the others. These are the essential organs of the flower. The little stalk in the centre, thicker than the others, is the female organ, called the pistil, the finer ones are the male organs, called the stamens. The calyx and corolla are non-essential organs.

If a stamen is examined closely, on the top of the stalk which is called the filament, will be found a little bifid seed-like formation coloured a golden yellow. The seed-like formation is the anther, and the golden colour is given to it by minute pollen grains. The pistil, on examination, will be found to have a little knob on the end, which is known as the stigma. The stalk of the pistil is called the style, and at the base of the style will be found another little knob, smaller than the stigma, which is named the ovary. The ovary contains minute egg cells or ovules, which form the seeds of the fruit. Below the ovary is a small cup-shaped formation called the nectary, which contains the nectar, a watery fluid commonly called honey.

*"Fruits of Queensland," by E. H. Benson. Page 28.

### Pollination.

Bees and other insects, attracted by the white showy petals, or the smell of the honey in the nectary, brush against the anthers when obtaining the honey, and some of the pollen grains adhere to their legs and bodies. On leaving the flower they rub against the stigma, and deposit some of the pollen grains on that part. When the stigma receives pollen grains from the anthers of the same flower, it is known as self pollination or close pollination. When pollen is transferred from the anthers of one flower to the stigma of another, it is known as close pollination. Citrus trees generally are pollinated by insects, and are said to be "Entomophilous" (Greek:—Entomon, an insect; and philos, to love).

### Fertilisation.

When a pollen grain is deposited on the stigma, it germinates and sends a shoot or tube down through the style into the ovary. There it fuses with a minute egg cell, and the union is known as "fertilisation." Fertilisation in citrus usually takes about four days.

Where self-pollination is followed by fertilisation, the trees are said to be "self-fertilised," or "close fertilised."

Cross-fertilisation is the term for cross-pollination followed by fertilisation.

Only one grain of pollen is necessary to fertilise each ovule, but experiments have shown that an excess of pollen is beneficial, and larger fruits have been the result.

Pollination has become such a general term, that it often includes fertilisation. A flower may be cross-pollinated, yet not cross-fertilised.

The Naval Orange has no pollen on its anthers, and as it does not require pollination, it is said to have Parthenocarpic fruits. This may have some relation to the many bud mutations of the Navel, and the tendency to throw sports such as Thompson's, Golden Nugget, etc.

Occassionally, seeds are found in the Navel Orange, which is undoubtedly due to cross-fertilisation. From experiments carried out in Japan by T. Theda, we find that some varieties of Oranges are uncongenial. That is, cross-pollination between certain varieties causes the young fruits to drop off. This may have some bearing on the tendency of the Washington Navel, in some parts of Victoria, to drop a big proportion of the young fruits.

Most of our citrus varieties have been obtained by natural cross fertilisation, as their origin in most cases can be traced back to seeds planted by their originators. Some are propagated bud mutations or sports, others are hybrids.

### Hybridisation.

Hybrids are the products of crossing between two species. Of late the word hybrid has been used to a great extent to include all crosses, whether between species or varieties. A good reason for this lies in the fact that there are no hard and fast rules in citrus between varieties and species, so that hybridism cannot be defined exactly.

In order to cross two varieties of different species, great care must be taken to keep the two varieties free from any foreign influence. Paper bags must be tied over the blossoms before the buds open, to prevent the bees introducing foreign pollen grains. When the buds are just opening, the twig bearing the blossoms which are to be made males, should be cut off and carried to the tree which is to become the female parent.

The petals of the female blossom should be prized apart, and all anthers carefully removed with a pair of forceps. The petals of the male blossom should be cut off, and the stamen removed with a pair of forceps. The anthers of the male should then be pressed down carefully on the stigma of the female, leaving as much pollen as possible on the stigma. All blossoms cross-pollinated should then be re-covered with paper bags, to prevent the bees from interfering and spoiling the work by introducing undesirable pollen grains. This is a delicate operation, and requires practice and a great deal of care.

When one blossom ripens earlier than another, the pollen grains may be kept for a few days by drying them on paper, and storing until required.

The stigma, when properly matured, is quite sticky, and when the pollen grains are ripe the bifid anthers split a little and curl at the ends.

Quick results are always desired in crossing, because years would be lost in the natural order of things. It has been discovered, that the influence of strange pollen grains deposited on the stigma also affects several buds behind the blossom. This influence is not durable, and before it ceases these buds may be transferred to a suitable shoot on a mature tree, and results obtained the following season.

If seeds of a hybrid are planted, buds from the young seedling, when in its 5th or 6th leaf, may be skilfully removed and inserted in a suitable shoot of a mature tree, and results obtained much sooner. These methods are unreliable, and better results are obtained by allowing the hybrids to mature, when all habits of the tree and its fruits can be recorded.

Sometimes, in cross fertilisation, the hybrids obtained are found to have the characters of the parents unmixed, e.g., one half of a fruit may be Orange and the other distinctly Lemon. These are termed "Mosaic-Hybrids."

The progeny arising from cross fertilisation between varieties of the same species are termed "variety hybrids," e.g., a cross between the Washington Navel and Late Valencia would be a "variety hybrid."

There are many technical terms to designate the various degrees of crossing, such as "trispecific hybrids," hybrids crossed with another species differing from either of its parents. "Derivative hybrids," hybrids crossed back to one of its parents.

When the species crossed belong to the same genus, the progeny is sometimes called "species hybrid," to distinguish it from "genus hybrid," a cross between trees of different genera. "Genus hybrids" are rare, and there is no record of any cross between different families or orders.

### Conclusion.

Great improvements in varieties may be achieved by bud-selection, but greater changes can be brought about by hybridisation. When the improvement of varieties is considered, and compared with the world-wide growth of the citrus industry, the fact is evident that competition must force the breeding and selection of better varieties. Hybridisation and cross fertilisation will be a big factor in this matter. Varieties and types will be demanded, which must be the constant aim of the breeder or selector.

Success in hybridisation can only be attained by great care and patience. Many varieties may be bred before the desired characters are combined in the offspring. This method of producing new varieties should be given more attention by individual citrus growers. Desirable parent trees can be chosen, and a definite type aimed at, instead of the haphazard method of selecting seedlings which have been cross-fertilised by bees, and the parents chosen at random.

# Flesh Collapse in Apples, Season 1924.

## Influence of Variety, Maturity and Cold Storage Conditions.

By N. McClelland and L. W. Tiller, Cawthron Institute, Nelson, N.Z.

APPLES IN COOL STORAGE have suffered much less from flesh collapse* than was the case last season, but the authors are not yet in a position to say definitely what is the direct cause of the disease. The experiments, however, conducted this season (1924) substantiate the conclusion arrived at by the writers in 1923† that excessive humidity is a factor of great importance in the development of flesh collapse.

A brief outline of the work which has been done in connection with the disease follows, as it is thought that this may help towards a clearer understanding of the problem.

1. Campbell and Esam (N.Z. Jour. Ag., December, 1918) put forward suggestions on cool storage, these including the maintenance of a low and constant temperature of (32-33 deg. F.), and the necessity for ventilation, for storing immediately after picking and for storing only fully matured fruit.

2. Esam (N.Z. Jour. Ag., January, 1920) in a report on cool storage experiments indicated that the best results were obtained by picking fully matured fruit and by storing for a relatively short period only. Immediate storage of fruit was advocated and initial experiments on loss in weight of fruit as a check on cool storage were instituted.

3. Rice (N.Z. Jour. Ag., January, 1921) continuing Esam's experiments confirmed the results then obtained.

4. Flesh collapse had been known for some time previous to 1920, but it then began to cause sufficient damage to attract more attention; in 1922 a disease known as brown heart began to cause severe trouble in shipments to England.

Waters, publishing in the N.Z. Journal of Agriculture, p. 34, July, 1922, considered that brown heart was identical with the local trouble, flesh collapse. He recognised a difference in susceptibility to flesh collapse due to weather, cultivation, maturity, size of Apple and age of tree, but did not consider these factors a bar to satisfactory cool storage. The complaint commonly made that flesh collapse was caused by actual freezing of the Apple was considered unwarranted, and an experiment wherein Apples were subjected to a temperature of 20 deg. F. for some hours without inducing flesh collapse was quoted in support of this.‡ A hypothesis was put forward that unfluctuating low temperatures might give rise to flesh collapse.

5. About this time Ballard, Magness and Hawkins (U.S. Dept. of Ag. Bulletin No. 1104, 1922) published a report on the internal browning of Yellow Newtown Apples in the Pajaro Valley, California, U.S.A.

From the description it appears that this disease is similar to, if not identical with, flesh collapse. Location of orchard was regarded as an important factor influencing the susceptibility to the disease, most damage occurring in fruit from the Pajaro Valley, where there is an extremely cool growing season, coupled with high humidity and fertile soil; heavy applications of manure, particularly nitrogenous fertilisers, tended to increase the browning. Storage at 36-38 deg. F. was suggested as a preventive.

6. A consideration of the causes of brown heart§ led Waters (N.Z. Jour. Ag., July, 1923) to further advance the hypothesis (suggested in 1922) that brown heart and flesh collapse were identical.

It was considered that flesh collapse was caused by a deficiency of oxygen and an excess of carbon dioxide in the store air, and that apart from this there was a difference in susceptibility, one of the main causes of which was over-maturity. Locality was now, however, considered to be relatively insignificant in contributing to the amount of damage by flesh collapse.

It was suggested that the flesh temperature of incoming fruit be reduced to 32 deg. F. within 48 hours in order to prevent the rapid utilisation of the oxygen of the store air; the relative humidity necessary for running was suggested as 90-95 per cent.

7. Kidd and West (Dept. of Scientific and Ind. Research, Special Report, No. 12, 1923) continuing their work on brown heart indicated that the lowest concentration of carbon dioxide in which brown heart had occurred was 13.6 per cent.; the disease internal breakdown was differentiated from brown heart, and the suggestion was made that it was probably identical with flesh collapse.

8. Winkler (Jour. Ag. Research, April, 1923) and Overholser, Winkler and Jacob (University of California Publications, Bulletin No. 370, Sept., 1923), reporting on the internal browning of Yellow Newtown Apples, indicated that orchard locality influenced the disease. Over-maturity and delayed storage increased the damage; on the other hand, accumulation of carbon dioxide did not favour browning, and ventilation and the use of oiled wrappers reduced it.

These investigators put forward as preventive measures storing at 37-40 deg. F., combined with adequate ventilation.

9. The authors in January, 1924 (Auckland Weekly News), published a preliminary note on the results obtained during the 1923 season, disproving the statement that flesh collapse was caused by a deficiency of oxygen and an excess of carbon dioxide, and also pointing out the effect of temperature on relative humidity.

10. Loss in weight experiments were again taken up by the N.Z. Department of Agriculture,‖ Waters (N.Z. Jour. Ag., April, 1924) using the method as a measure of the effect of cool storage conditions; it was stated that 40 lbs. of Sturmers could lose 2 lbs. of water without detrimental shrivelling. It was indicated in this preliminary note that a study

*Kidd and West, in International Review of the Science and Practice of Agriculture, New Series, Vol. II., No. 3, page 598, July-Sept., 1924, suggest that flesh collapse be included in the list of diseases classified as internal breakdown, which appears to be caused by too low a temperature. Avoidance of a multiplicity of terms for the same diseases is sound in principle, but the term flesh collapse is being used until such time as it may be definitely shown that the trouble is caused by low temperature only.

†Cawthron Institute Bulletin, Flesh Collapse in Apples, Season 1923, p. 2.

‡In 1923, a somewhat similar experiment was made by the authors with a view to ascertaining the resistance of the Apple to extreme cold. Mature Sturmers were left in a duct at a temperature of 25 deg. F. for a period of a week. Fruit examined immediately after removal from the duct showed slight damage due to freezing, manifested by a browning of the tissue, whereas other specimens allowed to thaw out in ordinary cool storage and held there for a short period proved to have completely recovered. Kidd and West (loc. cit. p. 602) have also noted this phenomenon.

§Reports of A. H. Ashbolt and Sir Henry Jones; Dept. of Scientific and Industrial Research; Dr. C. Brookes; and Professor McAlpine.

‖Cf. Esam, N.Z. Jour. Ag., p. 10, January, 1920.

of the effect of the "temperature-humidity ratio" was part of the programme for 1924. (Cf. N.Z. Jour. Ag., July, 1923),

11. In July, 1924, a detailed account of experiments (see No. 9) carried out by the authors during the season 1923 was published, setting forth observations on storage conditions and on some orchard conditions which might affect the susceptibility of the fruit. In the case of Sturmers in two stores locality was shown to have the greatest influence, maturity and delayed storage coming next; delayed storage of Jonathans, however, was beneficial. Systematic observations of temperature and humidity were made, and the co-ordination of these results with the percentage of flesh collapse indicated that humidity was probably a very important factor in the production of the disease. Attention was drawn to the fact that a rise in temperature automatically causes a reduction in humidity, thereby increasing drying power.

12. Waters (N.Z. Jour. Ag., Nov., 1924) in a further paper on loss in weight (now modified so as to include carbon dioxide, esters, etc., cf. No. 10 above) considered that this would give an indication of the cumulative effect on the Apple of the factors, circulation, temperature, humidity and loading. By suitable adjustment of temperature and humidity a loss in weight of 2½ lbs. per 40 lb. case of Sturmers was to be produced by November; this it was hoped would eliminate flesh collapse.

This completes the brief survey of the work of previous investigators, and now leads to a consideration of the results obtained by the Cawthron Institute this season (1924).

It is now generally recognised that, as pointed out in the Report for 1923 (No. 9 above), flesh collapse and brown heart are produced under different circumstances. In the same report the statement was made that humidity was probably a factor of great importance, but temperature might have a direct influence apart from its effect on humidity.

This season an attempt was made to run two chambers at the same temperature but at different relative humidity, but as independent control of the chambers was not possible the results were inconclusive. The comparison,** however, of this year's results with those obtained last year in the same chamber showed that while the temperature was practically the same, there was a considerable lowering of humidity, and Sturmers from the same localities were much less damaged by flesh collapse. The attainment of this lower degree of humidity was made possible by the Nelson Freezing Company following up their and our own conjoint observations made in 1923; the engineer, Mr. N. B. Brown, modified the plant so as to obtain a lower degree of humidity, with the result that mature fruit turned out with little commercial damage.

There is, of course, a possibility that seasonal variation†† may have had some influence on the keeping quality of the 1924 fruit, so that further experiments are necessary to ascertain whether, under the same storage conditions, equally good results can always be obtained in future. The possible influence of seasonal variation must always be borne in mind when comparing results obtained in different seasons.

In the case of some other chambers, a lower humidity combined with a higher temperature decreased the amount of flesh collapse, but until the experiment of keeping Apples at the same temperature but under different degrees of humidity can be carried out, it is not possible to associate flesh collapse definitely with high humidity.

It is to be noted that this reservation applies only to the actual cause of the trouble; our experiments in 1923, substantiated by those in 1924, showed definitely that the combined influence of higher temperature and lower humidity (giving greater drying power) lessened damage by flesh collapse.

On the basis of the maximum loss in weight allowable, attempts have been made‡‡ to deduce from the mean annual meteorological records for New Zealand the conditions required for the satisfactory storage of Apples until November. Apart from the fact that the calculations correlating loss in weight produced outside with the humidity in the store are based on figures which would appear to have no application,§§ the whole question as to whether these deductions are permissible is open to doubt. It is to be remembered that storage conditions entirely different from those in ordinary cool stores or in outside stores may beep fruit satisfactorily, e.g., gas storage (i.e., storage of fruit in air containing low percentages (6-8 per cent.) of carbon dioxide has been shown by the Department of Scientific and Industrial Research to be possible and to prolong the life of the fruit.

With regard to the loss in weight of Apples in storage, in the N.Z. Journal of Agriculture, p. 324, Nov., 1924, it was suggested as a line of work for future experimenters that the proportions of water, carbon dioxide, esters, etc., be determined for different "ventilation—temperature—humidity ratios," an expression which we believe defies definition in terms of the accepted meaning of the word "ratio." The authors had, however, in the early months of 1924, made quantitative experiments on the respiration products of Apples, under varying conditions of ventilation, temperature and humidity.

Cool storage conditions will, in the case of some stores at least, be again altered next season (1925) so as to produce a lower humidity at the usual temperatures, and it is hoped that future experiments under these conditions will completely eliminate flesh collapse and lead to some definite knowledge as to its cause.

An examination of the results obtained during 1924 follows; the points which have been investigated are:—

1. Maturity.
2. Locality.
3. Variety.
4. Delayed Storage.
5. Cool Store Conditions.

The methods of picking, packing, storing and examining the fruit were the same as in the previous season.

Table I. represents the results of two examinations of Sturmers from three localities, in a number of chambers; the figures represent percentage of flesh collapse. Table II. indicates damage caused by shrivelling. Table III. gives the dates of picking.

### 1. Maturity.

Under the drier storage conditions obtaining in 1924 the influence of maturity on the development of flesh collapse has been greatly modified, and the advantage of immature over mature fruit now appears to be practically nil. Immature fruit, apart from its admitted disadvantages with regard to colour and flavour, is liable to excessive damage by shrivelling if kept in a relatively dry atmosphere. Growers are therefore warned against storing immature fruit in stores which are kept reasonably dry, but with more mature fruit greater care must be taken with spraying.

**See Table V., p. 11.

††For the influence of heavy rain immediately before picking, see Report for 1923, Table I., p. 6.

‡‡N.Z. Jour. Ag., p. 321, Nov., 1924.

§§The mean humidity and temperature figures from January to December for New Zealand do not correspond with the figures for the packing rooms over the relatively short time during which fruit was actually stored, nor are these figures the same as those outside.

Table I.—Sturmer Results.

CHAMBER A.

| Date of Examination. | Locality. | Immature. Bad. p.c. | Med. p.c. | Slight. p.c. | Total. p.c. | Mature. Bad. p.c. | Med. p.c. | Slight. p.c. | Total. p.c. | Overmature. Bad. p.c. | Med. p.c. | Slight. p.c. | Total. p.c. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nov. 7 | A | 0 | 0 | 1 | 1 | 0 | 0 | 8 | 8 | 0 | 0 | 3 | 3 |
| | B | 0 | 0 | 13 | 13 | 2 | 4 | 10 | 16 | 0 | 0 | 5 | 5 |
| | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dec. 12 | A | 0 | 0 | 10 | 10 | 0 | 1 | 16 | 17 | 0 | 2 | 26 | 28 |
| | B | 0 | 1 | 24 | 25 | 2 | 5 | 25 | 32 | 0 | 2 | 26 | 28 |
| | C | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 |

In this connection attention must be again drawn to the necessity for late spraying (lime sulphur, 1: 120) as a preventive against ripe or bitter rot;* this disease is making more headway each year, and unless the grower can make time to spray till within a short time before picking, increased losses from ripe rot are to be expected.

*The ripe rot fungus is recognised by spots which first appear as light brown circular discolorations immediately under the skin of the Apple, then rapidly increase in size and become darker brown; later, the surface becomes slightly sunken, pale pink spores are given off while the disease continues to extend into the flesh of the Apple. The name ripe rot is misleading, as immature Apples are often attacked, and these may harden to "mummies" which can carry infection to the next season. Wounded surfaces on trees may also be infected, and the cankers thus formed produce a fresh crop of spores every year. Ripe rot is possibly the worst fungal disease of Apples in cool store because, if infected fruit, which has not been recently sprayed, is stored with sound fruit, the whole case as well as others nearby may be infected by the time the fruit is packed out.

CHAMBER B.

| Date of Examination. | Locality. | Mature. Bad. p.c. | Med. p.c. | Slight. p.c. | Total. p.c. |
|---|---|---|---|---|---|
| Oct. 31 | A | 0 | 1 | 19 | 20 |
| | B | 0 | 0 | 13 | 13 |
| | C | 0 | 0 | 0 | 0 |
| Dec. 19 | A | 0 | 2 | 16 | 18 |
| | B | 1 | 7 | 15 | 23 |
| | C | 0 | 0 | 0 | 0 |

CHAMBER C.

| Date of Examination. | Locality. | Mature. Bad. p.c. | Med. p.c. | Slight. p.c. | Total. p.c. |
|---|---|---|---|---|---|
| Oct. 24 | A | 3 | — | 41 | 44 |
| | B | 7 | — | 67 | 74 |
| | C | 0 | — | 27 | 27 |
| Dec. 11 | A | 2 | 7 | 55 | 64 |
| | B | 16 | 19 | 54 | 89 |
| | C | 1 | 5 | 70 | 76 |

CHAMBER D.

| Date of Examination. | Locality. | Mature. Bad. p.c. | Med. p.c. | Slight. p.c. | Total. p.c. |
|---|---|---|---|---|---|
| Oct. 25 | A | 0 | 0 | 16 | 16 |
| | C | 0 | 1 | 16 | 17 |
| Dec. 9 | A | 0 | 0 | 29 | 29 |
| | C | 0 | 0 | 16 | 16 |

Table II.—Damage by Shrivelling.

CHAMBER A.

| Date of Examination. | Locality. | Immature. p.c. | Mature. p.c. | Over-mature. p.c. |
|---|---|---|---|---|
| Nov. 7 | A | 91 | 44 | 9 |
| | B | 38 | 2 | 2 |
| | C | 27 | 0 | 0 |
| Dec. 12 | A | 90 | 82 | 68 |
| | B | 63 | 20 | 33 |
| | C | 55 | 14 | 11 |

CHAMBER B.

| Date of Examination. | Locality. | Mature. p.c. |
|---|---|---|
| Oct. 31 | A | 83 |
| | B | 0 |
| | C | 0 |
| Dec. 19 | A | 95 |
| | B | 59 |
| | C | 21 |

CHAMBER C.

| Date of Examination. | Locality. | Mature. p.c. |
|---|---|---|
| Oct. 24 | A | — |
| | B | — |
| | C | — |
| Dec. 11 | A | 26 |
| | B | 1 |
| | C | 1 |

CHAMBER D.

| Date of Examination. | Locality. | Mature. p.c. |
|---|---|---|
| Oct. 25 | A | 20 |
| | C | 2 |
| Dec. 9 | A | 78 |
| | C | 3 |

Table III.—Dates of Picking Sturmers.

| Locality. | Immature. | Mature. | Overmature. |
|---|---|---|---|
| A | March 7 | March 25 | May 14 |
| B | March 12 | April 7 | May 19 |
| C | March 18 | April 12 | May 17 |

### 2. Locality.

The influence of locality has, like that of maturity, been greatly reduced under the improved storage conditions, and it is probable that these can be still further modified so as to keep mature fruit (being that which is recognised as best suited for cool storage) from any locality.

### 3 and 4. Variety and Delayed Storage.

The only variety experimented with other than Sturmer was Jonathan. The improved cool store conditions lessened the damage from flesh collapse, but the beneficial influence of delayed storage was still distinctly noticeable as is shown in Table IV. Whether the same result could be produced by leaving fruit longer on the trees is not definitely known, but our attention has been drawn to the fact that at least one grower uses this method with apparently satisfactory results.

than that represented by an average humidity of about 75-80 per cent., with a flesh temperature of about 37 deg. F.: it is to be noted that the temperature above is indicated for the sole purpose of defining the humidity† and not necessarily as the temperature at which fruit should be stored. It is understood that these suggestions are only tentative and a means of diminishing heavy losses from flesh collapse; the authors will not put forward a definite set of conditions for the elimination of flesh collapse until such have been proved successful by experiment; but it is thought that the best conditions may possibly prove to be a low humidity at a moderately low temperature.

Table V. contrasts the effects of storage conditions in 1923 and 1924 on mature fruit from two localities, and shows the improvement effected by the reduction of humidity.

**Table IV.—Delayed Storage of Jonathans.**

| Date of Examination. | Time kept out of store. | Flesh Collapse. Bad. | Slight. | Total. |
|---|---|---|---|---|
| | | p.c. | p.c. | p.c. |
| Aug. 5 | 0 weeks | 20 | 37 | 57 |
| | 2 „ | 2 | 29 | 31 |
| | 3 „ | 1 | 21 | 22 |
| | 4 „ | 1 | 11 | 12 |
| | 5 „ | 2 | 7 | 9 |
| Oct. 13 | 0 weeks | 41 | 20 | 61 |
| | 2 „ | 10 | 18 | 28 |
| | 3 „ | 6 | 17 | 23 |
| | 4 „ | 7 | 21 | 28 |
| | 5 „ | 3 | 10 | 13 |

The date of picking was 19/3/24.

**Table V. Effect of Cool Store Conditions.**
**Comparison of Seasons 1923 and 1924.**
**Mature Sturmers. Store A.**

| | 1923. Flesh Collapse. Bad. | Slight. | Total. | 1924. Flesh Collapse. Bad. | Med. | Slight. | Total. |
|---|---|---|---|---|---|---|---|
| | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| Locality A .. | 52 | 43 | 95 | 0 | 1 | 16 | 17 |
| Locality B .. | 5 | 45 | 50 | 0 | 0 | 0 | 0 |

The interesting fact, to which attention was drawn in the Report for 1923, that the percentage of badly affected Apples increased, on longer storage, at the expense of those previously slightly damaged, the total percentage remaining practically unchanged, was again borne out by this year's experiments.

### 5. Cool Store Conditions.

No details of the conditions existing in different stores can be given, as the experiments were undertaken on the same understanding as that existing last year. From the records it would appear unwise to attempt to store fruit in a moister atmosphere

Ventilation is necessary to prevent accumulation of carbon dioxide, esters and other products of the respiration of fruit; there is evidence also that adequate ventilation reduces scald in Jonathans.

Experiments were made by the authors, and these showed that (in accordance with theoretical considerations) the best time to ventilate was not, as has been suggested,‡ between the hours of 9 a.m. and 3 p.m., but late in the evening or early in the morning, when the temperature is lowest. Although the relative humidity during the day is low, the actual weight of water carried is comparatively great. When, however, the air cools below the dew point during the night, saturation is reached and water is thrown out as dew, thus leaving the air with a low water content although at a high humidity.

In this way water is left outside instead of being brought into the store, and, moreover, the incoming air is at a low temperature, so that the two main difficulties in connection with ventilation are overcome.

In conclusion, thanks are due to the growers and to the cool store engineers and proprietors for their valu- without which these experiments able co-operation and assistance, could not have been undertaken.

†The drying power of air can be defined only by reference to both temperature and humidity.

‡N.Z. Jour. Ag., p. 40, July, 1923.

## IMPERIAL FRUIT SHOW.

**London, October 30 to November 7.**

The 1925 Imperial Fruit Show will be held at Holland Park Rink, London, from October 30th to November 7th. The committee has decided to include in the Commercial Growers' Competition arranged in connection with the above Show, three classes for Oranges, as follows—Seven boxes each of Navel, Late Valencia and any other variety of Orange (which, of course, includes Tangarines). 1st prize, gold medal; 2nd, silver medal; and 3rd, bronze medal. To suit Australian exhibitors the 26in. x 12½in. x 12½in. Orange box has been included.

Mr. S. A. Cock, Victorian Government Citriculturist, advises that the export case measurements are as follows:—External (excluding cleats), 24½in. long x 12in. deep x 12in. wide. The internal measurement (exclusive of partition) is 22 4-5in. x 11 2-5in. wide x 11 2-5in. deep. In other words, the case contains two cubes each one being 11 2-5in. x 11 2-5in. x 11 2-5in., cubic content, 2,964 inches.

To save any misunderstanding the Committee makes it clear that the standard commercial package will be accepted by the judges.

Australian citrus growers have won prizes at these Shows on previous occasions, and it is anticipated there will be entries for the forthcoming event in London.

The "Fruit World" is again acting in Australia on behalf of the Imperial Fruit Show Committee. Schedules are expected shortly, and will be sent to any interested enquirers.

### Taking Notes.

Billy, the bad lad, was getting along finely with the strong-room box of the local bank, when a policeman interrupted proceedings.

"Aha!" exclaimed the constable. "Now what are you doing here, I should like to know?"

Billy thought for a moment, "I'll tell you the truth," he said at last. "I am a financial reporter."

"You are, are you? How do you make that out?" said the policeman.

"I'll tell you that, too," said Billy. "You see, I am only taking a few notes."

# Insect Pest Control.

## July.

### Vine Scale.

This is probably one of the largest scales known, colour of adult scale, yellowish brown, raised. Eggs are cream-coloured. It attacks Orange and Plum trees, Tecomas, Vines, Virginian Creepers, and many other kinds of plants. It is certainly on the increase in Victoria.

Trees, after pruning, should be sprayed with red oil or lime-sulphur. It is advisable to spray before the hot weather sets in to prevent the eggs from hatching. Brush scales from plants with a hard brush, the eggs will fall to the ground and perish. Burn all prunings as soon as removed from the trees or plants.

### Olive or Black Scale.

This is a very destructive pest, which attacks citrus trees and fruits. Orange and Lemon trees are sometimes smothered with the well-known "sooty mould," a fungus caused by the sugary secretion from the scale insects which closes the pores of the leaves.

The colour of the covering of the young scales is light brown, sometimes yellowish, with a raised H like marking on the scale. When fully matured it is a dark brown or almost black. The number of eggs laid by each female varies from 200 to 250. Remedies same as for vine and other scales. Fumigation is also recommended.

### Red Spider and Bryobia Mite.

These two mites are closely allied. The young mites are red, becoming reddish or brown when fully developed. The eggs are very minute, so small as to be scarcely visible to the naked eye; colour globular and red. These are deposited on the bark of the trees, on fruit spurs, and other parts of the tree. These mites attack Apple, Plum, Apricot, Prune, Cherry, Almond and Quince trees. Spray after pruning to destroy eggs with lime-sulphur, red oil. The following is recommended:—Water, 100 gallons; flour paste, 4 gallons; lime-sulphur solution, 5 quarts; iron sulphate, 2 lbs.

The flour paste and lime-sulphur are thoroughly mixed in the spray tank, after which the iron sulphate is added and thoroughly agitated.

### Pear Leaf Blister Mite.

This is a very common and destructive pest of Pear trees and causes much damage to the leaves; when they are affected, reddish or dark brown spots appear, which become larger by age, and may spread so as to entirely cover and destroy the foliage. These mites pass the winter on the trees under the bud scales, and begin to work upon the leaves as soon as they appear in the spring. The eggs are deposited in holes bored into the undersides of the leaves. The work of the young after hatching causes the galls or swellings. Remedies same as for Red Spider.

### The Orange and Lemon Aphid.

These aphids are very numerous at present on the young growth of citrus trees. The insects vary from dark grey to black. Aphids are provided with a rostrum or beak, which they insert into the twigs and suck up the sap causing the young twigs especially to wither, and often to break off.

It is advisable to spray at once with nicotine sulphate, black leaf 40, or any of the reliable tobacco sprays.

### Woolly Aphis.

This is rather plentiful at the present. Spray with red oil, and nicotine sulphate after pruning.

For winter treatment in fighting the Cherry Aphis, Codlin Moth, and Painted Apple Moth, see June "Fruit World," page 226.

# Controlling Orchard and Vineyard Pests.

### Dusting v. Spraying.

METHODS OF pest control were dealt with in the course of an interesting paper read by Mr. C. H. Beaumont (Government Orchard Instructor), who recently returned from U.S.A., before members of the Blackwood (S. Aust.) Agricultural Bureau. At the outset Mr. Beaumont briefly referred to parasites, and the great success which is following the Aphelinus Mali in checking woolly aphis in New Zealand and Victoria. This Chalcid wasp, he said, had been bred extensively, and reports were encouraging.

Spreaders for spray mixtures were worth giving a trial. The tests regarding codlin control showed that it was possible to get 95 per cent. of clean fruit. Spreaders were being incorporated in many proprietary mixtures.

The material used was a by-product of butter-making casein, and could be obtained in any quantity. It needed an alkaline solution to dissolve it—lime or caustic acid. The quantities were:—Water, 1 gallon; caustic soda, 3 oz.; powdered casein, 1 lb. Bring the water to the boil, and then add the caustic soda; slowly add the casein, stirring well to avoid lumps. One pint of this would be used in 100 gallons of spray mixture. Too much must not be mixed at once, as it did not keep well.

### Dusting Versus Spraying

With regard to dusting versus spraying, Mr. Beaumont said he did not wish to be misunderstood. He did not contend that the spray pump was a thing of the past, and that only the dusting machine was to be used. There were some pests which needed the spray pump, dust being of no avail yet, but in many ways dusting was superior, cheaper, quicker, and in every way more effective than the solutions.

Apart from the fruit growers' standpoint copper carbonate dust was being used for the disinfection of seed wheat, instead of bluestone or copper sulphate solution, or formalin. The dust had many advantages, the principal of which were ease and economy of mixing with the seed—2 oz. of the powder would treat 60 lb. of seed. It could be mixed at any time, perhaps when other work could not be done, and could be stored. The treated seed did not attract moisture, and therefore the seed ran freely. There was no injury to the seed, and therefore there was better germination. It helped to disinfect the soil, and being insoluble in water, the effect was lasting. It stuck well, and if applied in proper manner every part of every seed was well protected.

For many years vignerons had made use of sulphur dust as a

**protection against oidium,**

which was responsible for much damage to vines every year.

It was well known that sulphur in proper form was a great help in controlling this fungus pest. In addition to the necessity for a right form of sulphur there was the necessity for proper application. So far as he (the speaker) knew there was not a good sulphuring or dusting machine in use in South Australia, and there was but little of the right form of sulphur used.

The most important time to apply was just before the blooming period. The fungicidal properties of the sulphur did not develop at a less temperature than 75 to 75 deg. Fahr.

The sulphur must be evenly distributed, and in case of heavy winds or rain the work must be repeated.

A good power-driven machine should be used in every large vineyard. The sulphur must be the right sort. To many growers sulphur is just sulphur.

For dusting purposes the best sulphur could not be too good. It had been proved beyond doubt that the best form of sulphur to use was genuine sublimed flowers of sulphur. This was absolutely pure and extremely light. It stuck well to the foliage, and was in such a form that the heat readily split it up, vapourized it, and thus made it available for its work.

The dust most favored contained 20 per cent. of hydrated lime.

In addition to being of great use to the vigneron, sulphur was also most

**useful to the orchardist**

in the control of red spider or bryobia mite. To get the best results it was important to attack so soon as hatching began, the old insects being almost immune. The sulphur which went on the ground had its use in preventing the maturing of pests above the surface, on decaying leaves, fruit, and so on. and assisted in fertilizing the soil.

Sulphur sickness had been noted in trees, especially prunes and almonds, as a result of the use of lime sulphur solutions. The use of dusting sulphur, either dry or wet, would not cause this sickness.

### Chemical Dusting for Fungus and Insect Pests.

Bordeaux mixture, continued Mr. Beaumont, was one of our best known fungicides. This could be used in dust form; both elements—copper sulphate and lime—were combined in a fine powder when applied to tree or plant the atmospheric moisture or dew present would convert the combined dust into a perfect Bordeaux.

This dust was used for celery rust or blight, potato blight, late tomato blight, and for fungous disease on trees and plants where Bordeaux is a remedy.

Dusts were made for dealing with codlin moth, aphis other than woolly aphis, and all chewing insects. For codlin moth the mixture was 85 per cent. sulphur, and 15 per cent. arsenate of lead.

For insects easier to kill, a mixture was made of 80 per cent. sulphur, 5 per cent. arsenate of lead, and 15 per cent. lime.

For peach aphis, orange aphis, nicodust was the remedy. It was made by adding nicotine sulphate to hydrated lime, the strength being in conformity with the type of insect to be dealt with. The mixture was best made when about to be used, as it was somewhat volatile. A machine for mixing and using this dust could now be obtained in Australia.

If they excepted woolly aphis they might claim that dusts were obtainable to deal with every form of pest on the farm, orchard, vineyard, and vegetable garden.

It was claimed that one "duster" with a man and boy would do the work of four sprayers, eight men, and 12 horses; that it would do the work more effectively, and at a less cost.

For scale insects, such as red scale, where ordinary dust or spray was not satisfactory, they had an effective dust in calcium cyanide, which contained from 40 to 50 per cent. of calcium cyanide and not more than 60 per cent. of inert material.

To get the best use out of this dust a tent was used in the same way as for fumigation, but there were no chemicals to worry about. The dry dust was measured out according to the size of the tree. The delivery pipe of the blower was passed into the tent, and the dust blown in.

Thirty trees could be dusted in 45 minutes with a hand machine. This mixture was used at night the same as for fumigation by chemicals. The resultant dust on the tree was simply lime hydrated, the cyanogen having been given off so soon as the dust was exposed to the atmosphere. The result of the use of this dust was equal to any wet method as far as killing power went, and it was safer and easier to use.

Transport of acids and so on were done away with, and there was no danger of burning the tents. It was probable that this dust would be used without tents in the near future, and it was expected that the cost of control of **red scale** would be greatly lessened. It was also being applied to vegetables for the control of insect pests.

### Types of Dusting Machines

There were various types of dusting machines, Mr. Beaumont stated, just as there were of sprayers, but in power dusters they were so alike that the main principle was the same, the variation being the engine only.

For a large orchard or vineyard a good machine—the best—was needed. It was not an intricate machine; the main parts were the hopper to hold the dust, the brush feeder, which kept a regular supply of dust dropping into the blower compartment in front of the fan. The delivery hose was of about 3-in. size, in order to deliver a good cloud of dust. Smaller machines to hand power were made to suit the size of the holding and the pocket. The prices ranged from £10 to £100.

In applying it was usual to hitch the duster on to a tractor or a motor, and travel through at about 10 to 12 miles an hour. No stop was made at each tree. Ordinary open trees took enough dust from one side; large, dense trees were dusted both sides. Small trees were "puffed," the dust being cut off between the trees, and only a "puff" sent on in passing. The machine was very light as compared to a spray outfit, less than one-fifth of the weight, so that it could be used at times when the spray was impossible. The dust would stick; it would search out all the crevices and corners. It was better applied on a quiet day, preferably early morning or evening. A quiet night was best of all. Fungicides were used before a rain, and insecticides after.

### Thoroughness Essential.

It was no use expecting more effectiveness from dusting than from spraying. Time and thoroughness counted just as much with the one as with the other. One had to learn to dust successfully, just as he had to learn to spray successfully. If he failed to get good results, he should not blame the dust or the machine. Seek out the cause of the failure and try again.

Dusting was surer than spraying if one stuck to it. For the man in a small way dusts were a great boon. There was no mixing of sprays, no worrying for boiling water, and so on.

A small blower dust gun and a packet of dust would control a few trees just as well as an orchardist in a big way would by a larger appliance. For the operator old clothes were wanted. An old dust coat and a pair of motor dust goggles were good. Dust did not worry the skin like a spray did, and it rubbed off easily.

The lecturer, in conclusion, stated he would like to see the methods outlined by him demonstrated here. His object in bringing the subject up was in the hope of reducing costs in time and money with efficiency.

### Growers Request Experiments.

A vote of thanks was accorded to Mr. Beaumont, and it was resolved to ask that experiments be conducted to test the value of dusting.



*Conference Delegates and Visitors.* *"Leader" Photo.*

# Victorian Fruitgrowers' Successful Convention at Echuca

THE Annual Conference of the Victorian Fruitgrowers' Central Association was held at Echuca on May 26th and 27th, there being nearly one hundred delegates present from all parts of the State. The conference was in every way successful. The debates were keen and at times emphatic, though where opinons differed, good feeling was shown. Mr. J. W. Bailey presided.

The Mayor, Cr. C. A. McBride cordially welcomed the delegates.

In declaring the conference open, the Minister for Agriculture (Mr. Bourchier), urged growers to organise. If growers failed to organise it was not the Government's place to do it for them. In Victoria there were 85,000 acres of orchards and 45,000 acres of vines producing an annual revenue of £5,500,000. Growers should realise the necessity for better packing and grading.

Regarding the registration of orchards, provision had been made to bring in a bill providing an orchard tax this year. This tax would be 1/- per acre. Kerb markets had been successfully organised but he was surprised that more municipalities did not avail themselves of them.

Mr. W. H. Everard M.L.A., who was received with cheers, said he took an optimistic view of the industry. He urged the Central Association to carry on the splendid work which it has done in the past. It was reported that the suburban fruit shops proposed "compulsory closing" on Saturday afternoons. He hoped this would not eventuate. Growers should have an opportunity of perusing the proposed registration bill. The sugar embargo was a burden on fruitgrowers in the southern states. He thanked the Minister for the grant of £200 to assist the kerb markets, and hoped the grant would be £400 next year. Growers now had space in their cool stores for 1,250,000 cases. He urged growers to organise and be self-reliant and not to fly to the Government for assistance on every occasion. (Hear, hear). He trusted fruitgrowers would respond liberally to the appeal for the Cronin Memorial Horticultural Scholarship fund.

The Hon. R. H. S. Abbott M.L.C. spoke of the developments in the fruit canneries and urged caution with the proposed orchard tax.

Mr. W. E. James (Harcourt), moved a vote of thanks to the Minister. He mentioned the difficulty in securing advances from the Savings Bank.

In seconding, Mr. John Tully, Doncaster, said that northern and southern growers should work unitedly for the common good. Canneries were being established in the north and the kerb markets were not only benefiting the south, but northern growers could also send supplies for sale. With regard to the new grading regulations, southern growers agreed to the grades and applauded the action of the Department in freeing them from the necessity of labelling the brands on open cases.

In responding, the Minister said it was the intention of the Government to introduce legislation for the establishment of a Rural Bank.

The annual report and financial statement were read and adopted.

The annual report urged the necessity for sufficient funds to fight arbitration awards. It regretted the Association did not receive the support it deserved, and recommended plans for reorganisation.

### Orchard Pests.

Considerable discussion took place on the resolution that a scientist be appointed by the Federal Government to deal with insect pests. Mr. James said that the State Entomological Department had done good work but was starved through lack of funds.

On the motion of Messrs. J. Cooper (Lancaster), and F. Thomas (Bunyip), it was resolved to urge the State Government to strengthen its Entomological Department and carry out research work to discover the best means to combat various orchard pests, and that sufficient funds be made available.

Messrs. E. J. Rule and J. Rushton (Shepparton), urged that orchard inspectors be given power to take samples of sprays from unopened tins from growers' properties or local stores, and moved "that the Minister for Agriculture be requested to empower local orchard supervisors to take samples of commercial spraying materials and to have same analysed by officials of the Department." (Carried).

### Markets in the Near East.

Mr. J. H. Lang (Harcourt), suggested a shipment of 1,000 cases of fruit to China in winter. Apples and Oranges could be sent. If a market for even a moderate quantity could be developed in China, the Phillipines and elsewhere thereabouts, it would be valuable.

Mr. J. M. Sinclair (Bamawm), said that growers should not expect a big market from the East as the European population was very small. A thousand cases would clog the Hong Kong market.

On the motion of Messrs. Lang and A. F. Thiele it was decided that the Government be asked to subsidise growers to the extent of 50 per cent of the steamer freight on fruit to Hong Kong.

**Orchard Registration.**

A vigorous discussion took place on the subject of the proposed orchard registration bill. Delegates affirmed the necessity for growers to have an opportunity of perusing and discussing the bill before it became law.

The Chairman stated he knew the contents of the bill but was not permitted to disclose same. Regret was expressed that Mr. Ward, Superintendent of Horticulture was unable to be present to give details. Delegates asked how the conflicting ideas were reconciled, the previous conference having affirmed the necessity for the orchard registration fees to be vested under Association control, the executive having the right to sue; yet it was understood that under the new proposals the Department would collect the funds and apportion them out to the several sections. It was further pointed out that the expenses so far incurred by the State Fruit Advisory Board had to be met out of the first collections. To this phase the delegates took strong exception.

It was finally decided on the motion of Messrs. Tully and Churches, "that the State Ministry be asked to submit a draft of the proposed orchard registration bill to the executive of the Association before the bill is submitted to Parliament, that the draft be circulated amongst affiliated Associations and that a special meeting be called to consider it."

**Australian Conference of Fruitgrowers.**

Mr. R. E. Boardman explained the difficulty in calling a conference in Brisbane in view of the approaching Federal Fruit Advisory Council meeting in Melbourne. The matter was referred to the incoming executive.

**Softwood Cases.**

On the motion of Messrs. Tully and Thiele it was decided that the Federal Government be asked not to increase the duty on shooks for cases.

**Victoria Market.**

Mr. Lorimer urged that the Victoria Market should be opened at 6 a.m. instead of 4 a.m. as the present system was uncivilised and un-Christian. Mr. Nankervis supported. Other industries were improving their conditions but the fruitgrowers were thirty years behind the times.

Mr. Mawdsley, Fruit Retailer, supported the proposal.

Mr. Cameron (Kilsyth), urged that the opening hour be left at 4 a.m. as at present.

On the motion of Messrs. Lorimer and Nankervis, the matter was left to the Metropolitan Association.

**Forestry.**

Mr. Lorimer urged that waste, poor and steep lands should be planted with pines. The trees would be immensely valuable in fifty years time.

Decided on the motion of Messrs. Lorimer and Thiele "that the Government be congratulated and thanked for the steps it has taken to increase the area under forests, and that the affiliated associations be urged to join the Forestry League."

**Sugar Position.**

Mr. McNab (Ardmona) moved "that this Conference is opposed to embargoes, and regrets the continuation of the sugar embargo for a further three years."

Mr. McNab stated that the present position was not economic. Political pressure had been brought on the Prime Minister to extend the embargo for a further three years. Hundreds of thousands of tons of sugar were being produced beyond Australian needs: even sugar growers were placed in a false position, and the situation was an impossible one. The sugar embargo heavily handicapped the fruit industry. The matter of duty should be dealt with through the tariff like any other commodity.

Mr. R. E. Boardman said that the Prime Minister had definitely announced that at the conclusion of the present agreement the embargo would be removed, and the sugar industry dealt with through the Tariff. That promise had been broken. During the sugar control the administration had been harsh, and the so-called rebates to bring the sugar exported in jam and canned fruit to export parity were unsatisfactory and wrongly calculated. The request for mill white or unrefined sugar for manufacturing purposes had not been granted.

Mr. Mair urged that instead of exporting the surplus sugar at a loss it should be made available for jam manufacture and fruit canning.

The matter was vigorously discussed. The amendment was lost, and the motion carried.



*Mr. C. H. Roberts' Citrus Grove, Echuca W.*

Mr. Lenne said that prices of £100 to £150 per acre had been paid for sugar lands. The production was now largely in the hands of Italians. Meanwhile fruit lands had been reduced from £100 to under £30 per acre. The sugar industry was not the bulwark of the "White Australian policy," as some supposed. The burden of maintaining the sugar industry should not be made to press unduly on the fruitgrower as at present, but should be borne by the whole community. Personally, he was pulling out scores of acres of fruit trees, and using the land as a sheep walk.

Mr. Churches moved as an amendment that an embargo be placed on the importation of jams and canned fruits (produced by black labour) as long as the sugar embargo continued. The Government had made a reduction of £6/5/- per ton on sugar for fruit processing.

**Advances for Country Industries.**

On the motion of Messrs. McNab and Churches it was decided "that this convention request the State Government to ameliorate the conditions imposed by the Savings Bank Commissioners when lending money for establishing country industries." Speakers affirmed that the demand that producers contribute 33 per cent. before securing advances, was unworkable, and that the placing of the advances to primary producers under the Savings Bank Commissioners was panic legislation. Under the previous system cool stores and other such organisations could obtain 92½ per cent. repayable in thirty years. But for these provisions many cool stores would not have been started. Interest had been met, and growers had not abused the privileges.

**Export Bounties on Fruit.**

Mr. Churches moved "that the Fe-

deral Government be asked to accept the principle of granting bounties on the export of preserved and fresh fruit to ensure a return equivalent to the Australian prices, or at least the cost, of production under Australian conditions as imposed by legal enactments." Mr. Churches quoted from the speech of the Prime Minister in Sydney definitely promising bounties on export, though later, Senator Wilson, Minister for Markets, had refused to acknowledge that principle. Continuing, Mr. Churches stated that export bounties were essential, these being only equivalent to the tariffs imposed. The Government had stimulated production by offering land on loans on easy terms. Artificial conditions imposed by law had raised costs. It was necessary for the Government to take further steps to ensure growers profitable markets.

Mr. A. Lenne (Ardmona) seconded the motion. The Government had financed the planting of huge areas of orchards, protected the manufacturer and labourer, and there now remained only the obvious necessity of providing bounties to export the fruit. Pioneer growers of thirty years' standing were facing a position which was ruinous.

The resolution was carried.

**Grading Regulations.**

Mr. A. F. Thiele moved "that this Convention approves of the action of the Government in exempting the marking of open packages of fruit and protests against any alteration with regard to same until the regulations had a fair trial, and the growers have an opportunity of expressing their views on the regulations." Mr. John Petty (Doncaster) seconded.

A keen debate followed. The Chairman was criticised for the resolution he moved, and which was carried at the State Advisory Board favouring the enforcement of the regulations without any exemptions. Metropolitan growers congratulated the Department on providing exemptions, which had healed a long standing breach. The regulations, as gazetted, including exemptions, should be given a fair trial.

The resolution was carried.

**State Advisory Board.**

The State Fruit Advisory Board was subject to considerable criticism. Several delegates condemned the Board as a worthless organisation. Particular stress was laid on the fact that the Board was not democratic. Apparently there was no system of election of representatives, and no means of removing any person appointed should he be deemed to be acting against the wishes of the growers.

The Chairman was asked whether he would resign should the Conference appoint a delegate in his place. Mention was made of the carrying of a resolution at the present Conference supporting the grading regulations containing certain exemptions, whereas the Advisory Board at its last meeting had asked that the regulations be not enforced, because these exemptions were included. The position was anomalous. The Advisory Board did not speak for the growers. With its mixture of agents, exporters, Government Officers and varied (often clashing) fruit interests, the Board was unwieldy.

Mr. Willoughby (Tyabb) said it was unreasonable to suggest that appointments were for life. He moved "that the Minister for Agriculture be asked to amend the constitution of the State Fruit Advisory Board, and to permit the appointment of representatives for the various sections for a period of two years, one representative to retire each year and appointments to be made by the sections concerned."

Mr. White (Tyabb) seconded. The resolution was carried.

**Rules and Constitution.**

Amended rules and constitutions were adopted, under which many Executive meetings are dispensed with, and quarterly council meetings will be held.

**Arbitration Court.**

Mr. R. E. Boardman directed attention to the decision of the High Court making it possible for the Arbitration Court to Register awards against growers, whether employers of union labour or not. He suggested a method by which all growers could contribute to a fund which would not only provide sufficient for Arbitration proceedings—which were certain to continue—but would also provide sufficient for the appointment of a permanent secretary and organiser. A similar procedure in the other States would simplify Arbitration proceedings and reduce the cost, besides giving continuity of effort in combating any unreasonable claims put forward. The proposed organisation would thus provide funds for the present work conducted by the Central Association, enlarge its usefulness and power, and make the way clear for an Australian organisation of fruitgrowers on sound lines.

**Office-bearers.**

Office-bearers were elected as follows:—President, Mr. Geo. Mock; Vice-President, Mr. John Tully; Executive—Messrs. J. H. Lang, R. Mair, F. Thomas, C. Wallace and A. Lenne; Secretary, Mr. F. H. Burbury.



*Victorian Fruitgrowers' Convention Delegates enjoy a trip up the River Murray.*

Mr. W. E. James was elected by ballot, but resigned to permit of the northern districts being represented when Mr. Lenne was elected in his stead.

A vote of thanks to Mr. James for past services was carried, and very warm appreciation was expressed at his action in standing aside in favor of the northern delegate. The delegates rose spontaneously and cheered Mr. James for his action.

In the absence of Mr. Ward (Superintendent of Horticulture) through illness, Mr. H. W. Davey, F.E.S., of the Department of Agriculture, addressed the Convention on the Eradication of Green Aphis and other Fruit Pests, speaking particularly of the parasite of the Root Borer, and answered numerous questions.

A message of sympathy was sent to Mr. Ward.

### Retail Fruiterers.

In thanking the Conference for the privilege of attending, Mr. C. Mawdsley, representing Melbourne and Suburban Retail Fruiterers' Association, said his Association did not approve of the exemptions to "open case" growers under the new Regulations. A carrier with motor transport might bring in several growers' lots, and would sell the fruit not knowing a Jonathan from a Rokewood: there should be a label denoting the variety and the grades, otherwise the buyer had no remedy in case of a prosecution. Local and country growers should be on the same footing: there were plenty of one-case buyers, and men not familiar with the trade who needed to be protected.

Speaking of the "Eat More Pears" campaign, Mr. Mawdsley thought that better results would be observed if the growers continued their propaganda for another season, nothing but good could result. Referring to Col. Bourchier's opening remarks, he emphasised the value of good grading and packing, as such quality fruit always sold first, even on a glutted market.

### Wholesale Fruit Merchants.

Mr. J. H. Young, representing the Wholesale Fruit Merchants' Association of Victoria, said his Association appreciated the invitation of the growers to be represented. It was only by mutual conference that the greatest good would accrue to all. The experience of the fruit agents was always at the disposal of the growers: mutual counsel would solve many problems, and bring about improved conditions. Members of the Wholesale Fruit Merchants' Association were under a substantial bond, which could be forfeited if an offender were proved guilty of unfair trading practises.

The Borough of Echuca and the Chamber of Commerce entertained delegates and visitors at a social, and a vote of thanks was carried to the Mayor, the President, and the Secretary of the Chamber for their hospitality and admirable arrangements made for the comfort of delegates. The morning of the 29th was taken up by an enjoyable trip on the Murray in the paddle steamer, "Melbourne," journeying twelve miles up stream to where the Goulburn joins the Murray. The state of the roads did not permit of the motor run to Bamawm, which had been arranged.

## DEPUTATION TO MINISTER.

A deputation from the Victorian Fruitgrowers' Central Association waited on the Minister of Agriculture on 11th June to place before him the motions carried at the Echuca Convention.

The deputation was introduced by Mr. W. H. Everard, M.L.A., and the Minister gave a very sympathetic hearing to the various speakers. In replying, the Minister stated that it was the intention of the Department to carry out **investigational work** regarding various orchard pests, and also to exercise greater supervision over commercial spraying materials.

Dealing with **Orchard Registration**, he believed the Central Association represented the majority of the organised growers, and that they were favourable to the proposed legislation. He read the vital clauses of the bill, and said he would consider the advisability of placing them before the Executive of the Central and the State Advisory Board before submitting to Parliament.

The request for **a subsidy of 50 per cent.** of the boat freight on a shipment of Apples and Oranges to China was granted, provided that the amount be refunded should the price obtained be above the Melbourne parity. (The space for 1040 cases has been secured on the s.s. "St. Albans," sailing on 5th September, and arrangements are well in hand for the shipment.)

The Minister said he would endeavour to meet the Association's wishes regarding more liberal advances for the establishment of cool stores, canneries, etc., but was not yet in a position to say in what manner it could be done. It was not the intention of the Government to alter the present grading regulations, and he thought that **members of the Advisory Board should be elected for a fixed term.**

At the suggestion of the Minister, Mr. W. J. Foster undertook to bring this matter before the Board for consideration.

On behalf of the deputation, Mr. Everard thanked the Minister.

## COOL STORAGE CONFERENCE.

### Diamond Creek, September 1 and 2.

The Annual Conference of the Fruitgrowers' Cool Stores' Association of Victoria will be held at Diamond Creek on September 1st and 2nd next, under the chairmanship of the President, Mr. R. M. Finlay.

In addition to the items for discussion affecting the work and policy of the Association, there will be several interesting papers dealing with fruit cold storage. A large attendance is anticipated. The Secretary is Mr. J. G. Aird, Ringwood.

## THE E-CHOOK-A CONFERENCE.

### Some Astounding Details.

### Willie Wagtail's Reminiscences.

I'm glad I went to the fruitgrowers' pow-wow at E-chook-a. Eh? I beg pardon, spelling not right? Well, if you'd gone to bed and found a rooster roosting on the bedstead, and a hen perching on the door knob, and if you'd seen Mr.— (no I won't mention names) trying to remove a festive chicken from under the bed by catching its legs with the crook of an umbrella, you'd agree with me that my spelling of that gay northern town was quite right, or anyhow, that the name of the place should be changed to denote its main industry. Chooks! I never heard such a noise in my life. Then one poor, misguided feathered biped—the one that got its shins hurt with the umbrella handle—tried to keep up its dignity by walking out (or it may have been half asleep, I don't know): anyhow, it walked out of the room and right off the balcony on the first floor, and fell with a sickening thud on the bricks below. Yes, eggs were down all right. I noticed the next day when I had eggs and bacon for breakfast that one egg was curiously elongated; being of a scientific turn of mind I thought it might be due to brown heart or bitter pit, but as soon as I heard of the sleep walking episode, the mystery was explained.

Echuca has another important industry. Crayfish. You see this local enterprise at its best about 1 a.m., when delegates who have been wrestling with problems concerning the greater consumption of fruit, turned their attention to wrestling with crayfish claws, anon talking to a pretty girl who serves the delicacy. Crayfish, I learned, have no flavour unless eaten after midnight. The lads have changed their slogan "eat more fruit" into "eat more crayfish," and in this they have the unanimous support of the Undertakers' Union.

Have you ever seen the "dog cart" in Melbourne or Sydney? You know that cage-like institution which parades round the streets at a walking pace with attendants walking alongside with ropes and nets looking for mangy dogs to take to the lethal chamber. Very necessary. Now in E-chook-a I saw a lot of spare dogs that nobody owned, and I heard that the Council was considering starting a "dog cart" enterprise. Then, as soon as the Fruitgrowers' Conference came, all the dogs mysteriously disappeared. Marvellous. The councillors were delighted.

But where had the dogs gone to, also the stray cats? Alas! the joy was shortlived; next day they were back again. No, I refuse to

mention names. All I can say is that there was neither a dog nor a cat in my bed, but at the pub. where I was staying I heard a hideous rumpus. Some industrious ass had been round wheedling the dogs and cats to follow him, and had put the frightful quadrupeds in the beds of the delegates. The agony was intense when the discoveries were made. I didn't know till then what a rich vocabulary the average fruitgrower possessed. If they could have found the silly blighter who did the trick they would have ducked him in the Murray (without asking the Chairman's opinion as to whether or not they were in order) and prayed for a crayfish to grab him. Their opinion of the sugar embargo and the Advisory Board was as nothing to their opinion of that cat-charming lunatic. And if his brain had to come under the grading regulations, I reckon he wouldn't have got through even the "D" grade. By the way, I heard that D—! grade frequently mentioned, and I wondered at the time. I understand now.

Oh! well. I didn't get a soap dish of water spilled in my bed, nor find a litter of kittens there: neither was I one of the gang which squared the chambermaid to sew up pyjamas. No, sir, I did not alter the alarm clock to wake up at 2 a.m., the boys who wanted to catch the 5 a.m. train.

But it was a great conference. We promoted Colonel Bourchier to the rank of General, knighted Sir Wm. Cattanach, raised Buffalo Bill Everard to Ministerial rank in charge of the fruit industry. We told the Government (Federal and State) what we thought of them, and generally played up like the Dickens. Well, good-bye, till next Conference. I'll be there, 'cause I'll get my exes' paid out of the Orchard Tax. But please, Mr. Secretary, don't put me at the same pub. with those rowdy Ringwood (crayfish) boys.

(Signed) Willie Wagtail.

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# Berry Growers' Conference.

THE fifth Annual Conference of the United Berry Growers' Association of Victoria was held at Lilydale on June 16, the President, Mr. J. Valantine, presiding over a fair attendance. Mr. W. H. Everard, M.L.A., and Mr. J. M. Ward, Superintendent of Horticulture, also attended.

In opening the Conference, Mr. Everard said that high sugar prices were a burden on fruitgrowers. The proposed orchard tax provisions were still in doubt.

Figures quoted by Mr. J. M. Ward, Superintendent of Horticulture, concerning the production of berry fruits in Tasmania, showed that the annual production of Raspberries amounted to about 2,000 tons. Recent figures of Victorian production showed that the total yield of Loganberries, Raspberries, Strawberries, and other small fruits was 664 tons in the 1923-24 season, and 778 tons in the previous season. These figures were, said Mr. Ward, in view of the population of the State, ridiculously low. Particularly favourable conditions existed in Victoria for the production of berry fruits. Experience of the needs of consumers indicated that, if **the present production of berry fruits were increased 20 fold,** the fruit could be sold to housekeepers quite apart from factory requirements. In Tasmania, about the year 1918, efforts to organise the growers had resulted in nine co-operative companies being formed, as a result of which 3/- a lb. was now being obtained for many of the berries grown in Tasmania.

Regarding the proposed Orchard Registration, Mr. Ward indicated the difficulty the Department had in determining what fruitgrowers really wanted.

The report of the General Secretary (Mr. R. A. Routley) showed that a successful year's work had just ended, the Association's activities preventing the fruit from dropping to prices below a paying level. The proposals adopted at last year's Conference had not received adequate support from the growers.

Mr. Blythe had courteously continued his services, and had secured orders for, and subsequently delivered, over 36 tons of various berry fruits, aggregating buckets and dozens to almost 7,000. This was a fine achievement. In addition to this, Mr. T. Sebire succeeded in obtaining a bulk order for about 13 tons, which subsequently became 20 tons. In connection with this, two facts stood out—(1) That had this buyer no association to deal with he would not have troubled to obtain fruit from individual growers; and (2) that his receiving depot was not closed for ten days at Christmas. In conclusion, the report stated that, successful as their efforts had been, their value would be lost if regarded in any other light but as a jumping-off place for greater effort.

Conference affirmed the necessity of the registration of the U.B.G.A. under the Provident Societies' Act, and instructed the Executive to prepare the necessary rules and regulations.

It was agreed to continue the distribution scheme in the suburbs, with Mr. W. E. Blythe as distributor, and to establish agencies in country districts as another outlet.

Several motions were passed designed to increase the efficiency of the Association. These dealt with the relations between the U.B.G.A. and the affiliated associations.

The retiring office-bearers were re-elected, namely:—President, Mr. J. Valantine (Mt. Dandenong); Vice-President, Mr. F. W. Budder (East Wandin); General Secretary, Mr. R. A. Routley (East Wandin), and Treasurer, Mr. H. Blanksby (East Wandin). The other members of the Board are Cr. W. C. E. Jones (Silvan), Mr. A. E. Child (Mt. Dandenong), and Mr. T. Sebire (Wandin).

## BEWARE OF UNSCRUPULOUS AGENTS.

The Wholesale Fruit Merchants' Association of Melbourne holds its members under a substantial bond to conduct their businesses on approved lines. Members are licensed under the Farm Produce Agents Act. It is known that several unscrupulous operators are corresponding with growers offering high prices, but entirely fail to secure same when the fruit is received. In some instances, the fruit is lost altogether, as these unscrupulous dealers trade under several fictitious names, principally from the Victoria Market.

## MELBOURNE FRUIT AGENTS.

In sending fruit to members of the Wholesale Fruit Merchants' Association of Melbourne, growers are asked to note that all members are licensed under Act of Parliament: members trade at permanent addresses, and hold a standing in the State's commercial undertakings. The Queensland Committee of Direction of Fruit Marketing, which controls the marketing of all Queensland fruits, employs only members of the Association to handle all fruit from that State, and this is accepted as an example of confidence in the Association and its members.

**Held Over.**—Owing to extra pressure on space we have had to regretfully hold over articles as follows:—Fruit Export to London (by Mr. Barney Springer), The Cold Dip Process for Dried Fruits (by Mr. A. V. Lyon, B.Sc.), Report of N.S.W. Fruitgrowers' Conference, Citrus By-Products (Hints from California), Tomato and Cucumber Notes, Fighting the Root Borer, illustrated (by Mr. A. F. Thiele), Somerset Conditions for Pear Shipments.

# New Zealand Fruitgrowers.

## Annual Conference of Federation.

THE annual conference of the New Zealand Fruitgrowers. Federation opened at Wellington on June 10th, Mr. T. C. Brash presiding.

The Hon. W. Nosworthy (Minister for Agriculture) congratulated growers on the very encouraging outlook for the industry.

"There has been a gradual easing up during recent years in the area planted in commercial orchards, only some 38 acres being set out during the last planting season," said Mr. Nosworthy. "The total area for the whole Dominion still stands at approximately 30,000 acres, of which about 75 per cent. consists of Apples. A total of 6,774 orchards were registered during the past year, and £1,970 was collected in orchard tax. This amount, less cost of collection, has been paid over to the New Zealand Fruitgrowers' Federation for furthering the interests of the fruitgrowing industry generally."

Mr. Brash, in moving the adoption of the annual report, said the problem of blemished fruit was one which had a great effect on local market results. Exports this year had been very satisfactory and probably this was due in a great measure to better quality in the fruit shipped, also a better steamer service. The fruit was arriving in Britain in a better condition than ever before, and New Zealand Apples were at the top of the market.

### Annual Report.

The ninth annual report, signed by the President and Secretary, stated that as decided by last conference, legislation had been enacted to give **control of export**, and, for the Provinces requiring it, control of fruit for local markets. Despite considerable opposition the Bill passed the House (with some amendments). The Otago District decided to take advantage of the provision made for any districts wishing to stop out of export control, consequently the Board was elected from other districts. The first meeting of the Board was held in March to deal with the 1925 export season.

**Export to Great Britain.**—Mr. T. W. Attwood, who had represented the Association in England last year, had been again appointed, having sailed at the end of January. He was also attending to the details of the New Zealand fruit exhibits at the Wembley Exhibition, 1925. 250 cases of special fruit had been sent to the Exhibition.

**South America.**—Thanks were expressed to the Government for the services of Mr. W. H. Rice, who visited South America in the 1924 season, and reported on fruit prospects there. Consignments under refrigeration were being exported to South America this season, but not the same quantity as last year.

**Case Timber.**—The Federation had imported 100,000 cases of Canadian hemlock timber for the Nelson districts, the cases comparing more than favorably with local cases, both as regards price and quality. The shipment was financed with the help of the Government guarantee. With still lower prices this year a larger quantity should be ordered.

**Advertising.** — Attractive posters were received from England per Mr. Attwood. With a small levy on fruit, a great deal more advertising would be possible. £40,000 was spent in England last season, and brokers, retailers and the public agreed that the consumption in fruit there was increased.

**Government Guarantee.**—The Government increased the guarantee to cover 300,000 cases during the 1925 export season.

**Research Work.**—The Government was being pressed to undertake research work regarding various pests, particularly the Earwig and the Mealy Bug. During the past year the Federation had taken the responsibility of having printed a book by Mr. G. H. Cunningham, Mycologist of the Biological Division, dealing with Fungus Diseases of Fruit Trees. This was a book of great value which should be in the hands of every grower.

**Orchard Tax.**—The amount received from the Government was £200 less than last year, but against that the cost of collection had been reduced. The amount received each year on account of orchard tax was becoming smaller, and for 1926 the Federation recognised that a considerably smaller amount would be available, as under the Export Control Bill payers of export dues were exempt from orchard tax for the amount they had to pay to the Export Control Board.

**Accounts.**—The **Orchard Tax** account showed cash received from New Zealand Government £1,700, less cost of collection, £382/17/11, leaving a net figure on which to operate of £1,317/2/1. The expenses were—Advertising, £150; conference expenses, £297; salaries, £350; directors' expenses, £78; the balance being spent in experimental work and administration, leaving a balance to be carried forward of £126/13/1. The **Trading Account**, with a turnover of £25,000, showed a gross profit of £2,737, or a net profit, after paying salaries, travelling and general administration expenses, of £930/14/5.

The principal asset on the **balance-sheet** was sundry debtors, £10,554, of which £4,500 was for case timber under Government guarantee. The liabilities included—Capital account, £3,045; bank overdraft, £4,206; sundry creditors, £1,757, the balance being made up of sundry reserves.

### Embargo on American Fruit.

A counter-blow at the United States was advocated by the Federation when conference unanimously adopted a motion urging the Government to put a total embargo on American fruit importations. This arose out of the action of the United States in prohibiting the importation from fruit from all countries infested by the Mediterranean fruit fly and including New Zealand among them. The Dominion has never suffered from the fruit fly pest, but a protest through the Foreign Office was ignored and the American authorities apparently refused to accept the positive assurance of the New Zealand Government on the point.

If American fruit were thus prohibited, it was recognised that this might mean risking the newly-opened market for New Zealand Apples in Hawaii.

# DEPLETED TIMBER SUPPLIES.

## Fibre Containers are taking the Place of Wood.

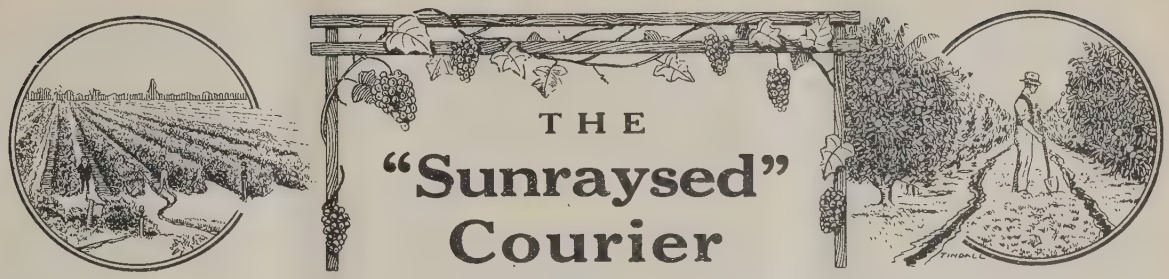
Australia, in common with all other parts of the world, is facing the prospect of a timber shortage. An announcement of the first importance is now made to the effect that fibre cases can be used in place of timber, thus showing a stupendous saving.

We are in receipt of a very interesting article from Messrs. J. Fielding & Co. Ltd., Buckingham St., Sydney, enclosing an article from the U.S.A. Forests' Products Laboratory, which maintains a laboratory to watch careless users of timber owing to the fast diminishing world's supplies. It is pointed out that in 1923 there were used in America **143,000,000 solid fibre cases** for the packing of all canned foods, which cases have taken the place of wood.

These results show an amazing saving in timber. The quantity of fibre boxes produced from a 1,000ft. log of timber is 108,000, as against 2,970 boxes of wood from the same log. These figures are in the ratio of 1 to 36.4, i.e. a given quantity of logs, 16 inches in diameter will produce over thirty-five times as many fibre containers as it will wood boxes of the same size.

It is further to be noted in this connection that the fibre containers offer a further advantage from the point of view of forest conservation in that the logs used for pulping are of smaller diameter than those used for the manufacture of box wood, and require less than half as long a time to grow, so that re-afforestation is much more attractive in the case of pulp woods.

Additional information in the form of scientific calculations is available on request.




**FEDERATED DRIED FRUITS EXPORT CONTROL BOARD.**

**Commercial Representatives:**
A. F. Bell, E. S. Whitehead.
**Government Nominee:**
W. C. Thomas (Chairman).
**Growers' Representatives:**
J. J. S. Scouler, Red Cliffs, Vic.
H. D. Howie, Renmark, S. Aust.
A. L. Johnston, Mildura, Vic.
A. Yeates, Millendon, W.A.
Acting Secretary—E. J. Mulvaney.

**VICTORIAN DRIED FRUITS BOARD.**

**Commercial Representative:**
J. M. Balfour (Chairman).
**Government Nominee:**
E. Meeking.
**Growers' Representatives:**
Jas. Milne, Red Cliffs.
E. T. Henderson, Mildura.
A. Lochhead, Irymple.
Acting Secretary—J. M. Allen.

**SOUTH AUSTRALIAN DRIED FRUITS BOARD.**

**Commercial Representative:**
L. N. Salter (Chairman).
**Government Nominee:**
G. A. W. Pope.
**Growers' Representatives:**
H. D. Howie, Renmark.
H. G. Evans, Renmark.
H. Kay, McLaren Vale.
**Secretary:**
W. N. Twiss.

**AUSTRALIAN DRIED FRUITS ASSOCIATION.**

**Board of Management.**
H. D. Howie, Renmark.
T. C. Rawlings, Mildura.
J. B. Murdoch, Waikerie.
J. Gent, Nyah.
G. Kitchen-Kerr, Red Cliffs.
Australian General Secretary—W. N. Sumner.
South Australian Secretary — Stan. Oldham.
**London Manager:** W. P. Caro.

## A.D.F.A. FEDERAL COUNCIL MEETS.

The meeting of the Federal Council of the A.D.F.A., which was postponed on account of the indisposition of the Chairman of the Board (Mr. H. D. Howie), was held at the C.T.A. rooms, Melbourne, from June 23rd until June 26th.

The most important item on the agenda was that under which the future operations and activities of the Association were to be discussed and a decision arrived at.

One South Australian Branch proposed that the Association cease to function for the time being, the idea being to build a new association out of the old on improved lines to be ready to take over the management of the industry if the opportunity occurred.

## DRIED FRUIT TRADERS.

### Questionaires Resented.

The Official Questionaire issued by the Export Committee is, in the opinion of some members of the Chamber of Commerce, both inquisitorial and unnecessary.

Annoyance had been caused by the number of official demands that had to be complied with and some of them were considered most vexatious.

A good idea of the amount of extra work these so-called regulating efforts put upon distributors, and the inquisitorial nature of the "form to fill in," can be gleaned from this list of questions that appear in the questionaire.

The shipper must state the name of the vessel, the port at which the fruit is to be landed, the fruits to be shipped, the full name and address of the packer of the fruit, the name of the owner of the fruit, the price paid to the packer, and the price paid by the overseas purchaser.

Red tape and inefficiency are also complained of.

## DRIED FRUIT SALES.

### London Prices.

The Chairman of the Commonwealth Dried Fruits Control Board (Mr. W. C. F. Thomas), states that advice has been received from the London agency of the board that during the week ended 11th June, 1,122 boxes of Currants and 8,830 boxes of Sultanas had been sold. Prices for Currants ranged from 41/- to 48/- per cwt., and averaged 45/6 per cwt. Sultanas realised from 64/- to 73/- per cwt., the sales for the week averaging 67/6 per cwt. Prices were as follow:—

**Currants.**—423 cases at 41/-, 15 at 44/-, 145 at 45/-, 204 at 46/-, 309 at 47/-, 250 at 47/6, 276 at 48/-. The average price of the 1,122 cases was 45/6 per cwt.

**Sultanas.**—377 cases at 64/-, 1,124 at 65/-, 2,662 at 66/-, 1,387 at 67/-, 727 at 68/-, 434 at 69/-, 1,168 at 70/-, 50 at 71/-, 346 at 72/-, 493 at 72/6, 62 at 73/-. The average price of the 8,830 cases was 67/6 per cwt.

A report to hand from the Australian Dried Fruits' Association includes interesting information from Messrs. Giraud & Co., of Smyrna, dated 15th April. The report states that the Smyrna 1923-24 Sultana crop was 39,700 tons, and the 1924-25 crop was 47,500. As regards the 1925-26 crop, there was no reason to apprehend any material reduction on the yield. Turkish farmers and peasants were working hard to develop agricultural resources, receiving help from the Government, Agricultural Banks and Schools, and by distribution of tractors and ploughs on easy terms of payment, together with improved transport facilities. Last autumn the vineyard and Fig orchards produced the largest yield since 1913, over 80,000 tons of Figs and various kinds of Raisins being harvested.

Dr. Haden Guest M.P. for Southwark North, has contributed a series of articles to the "Daily Mail," in which he condemns in the strongest terms imaginable, the unclean methods of handling fruit in the chief centres of the levant. "Dirty and even diseased Asiatics, working in filthy sheds in squalid lanes, are handling the fruit sent to England for consumption." Dr. Guest states that the squalor and filth are indescribably bad to an extent not mentionable except in a medical paper. The "Daily Mail," after a most searching condemnation in describing the unclean methods referred to, states:—"These conditions are sickening and quite intolerable. Overseas people here would be well advised to join the ever increasing public which prefers to buy fruits from Australia and other places within the Empire."

Lady Wiegall, wife of a former Governor of South Australia, from first hand experience, wrote to the "Daily Mail" on the 5th May commending the clean and hygienic conditions under which fruit is grown, packed and handled in Australia.

* * *

The Turkish Consulate has replied to reassure the public as to the cleanliness of their fruit handling methods.

# Citrus Industry in New South Wales.

## Growth of the Packing House System.

## The Remarkable Achievement of the New South Wales Central Citrus Association.

THE problem of organising the Citrus growers of New South Wales began four years ago with the formation of a small company registered under the Friendly Societies' Act at Gosford. That season, their pack was 6,000 cases from 28 small growers.

Two years ago, a few more had been born and with a few large individual growers formed the N.S.W. Central Citrus Association Ltd., in order to be a federated body working under the common ideals and organisation. From the initiatory meeting it was the intention that proper organisation depended on Co-operative Packing House Companies, and not individual growers, except in special isolated cases of a very large and up-to-date grower with proper packing house equipment in an isolated area. A typical instance being Messrs. McKillop & Sons of Narromine, whose average pack is 14,000 cases and who have a splendidly equipped up-to-date packing house of their own, and who have no orchards of any consequence within 50 miles.

Since the N.S.W. Central Citrus Association Ltd. was registered, the formation of other Packing House Companies has gone on apace. Most of the original individual members have helped in the formation and joined new packing houses, so that only three individual growers now remain in the Association and in the future, no more individual growers will be admitted except in such special cases as that just quoted.

The present strength of the movement may be gathered from the following particulars of membership and estimates of this season's total output:—

| Packing Houses. | | |
|---|---|---|
| Gosford District | 100,000 | cases. |
| Griffith Producers' | 60,000 | „ |
| Hills District | 45,000 | „ |
| Wyong | 40,000 | „ |
| Galston | 40,000 | „ |
| Kurrajong | 25,000 | „ |
| Somersby | 20,000 | „ |
| Central Mangrove | 20,000 | „ |
| Kenthurst | 20,000 | „ |
| Mangrove Mountain | 10,000 | „ |
| Yenda | 10,000 | „ |
| McKillop & Sons, Narromine | 14,000 | „ |
| Ross-Reid Bros., Leeton | 7,000 | „ |
| G. H. Parker, Dural | 4,000 | „ |
| | 415,000 | „ |

It will be seen from the districts mentioned how the small and apparently insignificant movement started four years ago at Gosford has now grown to a wonderfully strong State wide organisation. No organisation over the initial period of four years could have grown so consistently and strongly had not the whole system been based on sound commercial lines resulting in monetary advantages to growers.

The farmer is proverbially conservative and cautious, and no fairy tale promises have induced the creation of these companies or retained and increased the membership of them. There has been no charlatanism, no mesmerising slogans, no get rich quick Wallingford stunts,—success has simply resulted (in the face of enormous difficulties in most districts,—financial and fear of changed conditions, natural conservatism—) by the system

**being fundamentally sound,**

by the packing houses adopting rigid systems of grading for quality, sizing and resulting in standardised packs or a commercial product which can be sold on its brand without inspection.

This has naturally been a difficult matter, but absolute commercial sticking to standards is so vital to success that the Central Association has determined next year to appoint a packing house supervisor, whose main care will be the perfection of the pack of each house. Each packing house is properly equipped, has a permanent manager, foreman and packing staff during the season.

Each house is in complete control of its own financial and marketing arrangements and the Board of Directors of each company is responsible to their own shareholders for success.

The joining up of a shareholder is quite voluntary, but when he signs up he agrees, under a penalty, to send the whole of his Citrus crop to the Packing House for a specified period. In the early years, this period varied from two to three years, but this has been shown to be unnecessary and nearly all the Companies now merely make a

**contract for one season,**

the shareholder having the right to withdraw before the next season by giving certain notice, but naturally as he still remains a shareholder, unless his shares are transferred, he may again sign up at any time and is then again bound for the season.

The extraordinarily small number of growers who have even temporarily withdrawn is quite remarkable and even in the few cases in which this has happened, a number have subsequently again become contributors.

This combined with the number of new members in each house, speaks volumes for results that have been achieved.

The N.S.W. Central Citrus Association Ltd., which is

**financed by a small levy**

on the total production of each house, the rate of which is fixed at the beginning of each season, is controlled by a Committee of Management, the chairman of which this year is Mr. H. S. Robinson of Somersby. The Committee of Management is composed of one member from each house and each representative has one vote in its deliberations, irrespective of the size of the house. The committee meets generally every fortnight in Sydney during the season.

Until recently, the General Manager, Major H. R. Hallard, has been its only permanent executive official, but the Association recently decided to appoint a further officer styled Sales Organiser, and Mr. H. G. Such, late General Manager of the Griffith Producers' Co-op. Co. Ltd., has just been appointed to this position. This appointment in face of the abnormal growth of packing houses and the logical extension of activities of the Association has become vitally necessary, and the Association is fortunate on having secured the services of a man with Mr. Such's well known abilities.

The central body does not control any house, but simply because of its constitution, policies are carefully thought out and its advice and guidance is sought by all houses and uniformity of policy has resulted to a remarkable degree.

**The Association does not believe in the "straight to the consumer" chimera, believing it wasteful to efficiency and abortive in every direction in which it has ever been tried.**

On the other hand, it believes that a portion of the present and past system of distribution to be obsolete, wasteful, inefficient and unscientific, it believes that unnecessary transport and intermediary handling must be eliminated, that it must ascertain and open up

**every possible channel**

of distribution whether local, interstate or oversea.

That commercial standardised packs being available, many sales can be made without the aid of unnecessary intermediaries and by direct transportation.

That a sufficiently large number of selling agents in the capital cities is better than an inordinate number of selling agents, as involving more stability and control of the market in times of heavy output.

That every known avenue of distribution must be exploited and increased.

That by the systematic production of sound good fruit and the education of the public to the dietary and medi-

cinal values of Oranges, quite apart from their pleasurable eating (by means of organised publicity advertising and films, pamphlets etc.), the consumption of Citrus fruits in Australia can be enormously increased so that citrus fruits instead of being regarded merely as pleasurable adjunct will become, as in the United States of America, a staple article of diet on every table.

That the production of commercial, clean sound fruit of the highest quality must be the aim of every orchardist.

It believes that a federated Packing House system as demonstrated over the last 30 years in U.S.A. is the only means by which these beliefs can be translated to action.

Its methods have not been and are not revolutionary, it is advancing on logically evolutionary lines—**but evolution in our time.**

Nearly every new move of the Association has been hailed by some vested interest or other as going to disorganise the trade, but in every case these interested pessimists have been proved in the wrong. The fruit trade or any other, adjusts itself to changing conditions with marvellous rapidity, and so long as progressive steps creating efficiency and eliminating wasteful factors are followed consistently, so will the Citrus industry grow into strength and wealth instead of languishing in stagnation.

A remarkable indirect result, though quite logical, of packing house organisation, is the

**production of better fruit**

caused of course by the comparison of results achieved by growers of first class fruit as opposed to those obtained by growers of second and third grade stuff. These startling differences shown in black and white for the net results of Extra Choice, Choice, Standard and Graded quality, over short or long periods are very educative and resulting in the desire to get the majority of their fruit into the higher grades, has induced better planting, cultivation and manurial methods by hundreds of growers in packing houses.

Every existing house has noticed this general improvement in the quality produced, which of itself, naturally has put thousands of pounds into growers' pockets.

With complete organisation, this will naturally lead to the more or less elimination of the lower grades and the knowledge to every grower that it is only the best that pays. The general belief in the system is now recognised in New South Wales, and there is not the slightest doubt now that within a year or two, the majority of Citrus fruit grown in N.S.W. will be under the system.

## AUSTRALIAN CITRUS FOR N.Z.

It is pleasing to note that the New South Wales Central Citrus Association has commenced a Sales Stimulation Campaign in New Zealand. In this connection they have secured as their representative the services of Mr. H. G. Such, the capable and popular general manager of the Griffith Producers' Co-operative Association, N.S.W.

The N.S.W. Central Citrus Association will endeavour to regulate supplies, methods and quality, in the hope that mainly packing house fruit will be purchased by the New Zealand trade.

Fruit packed in the district sheds is of a uniformly high quality, and should command the most favourable attention by buyers.

## MELBOURNE ROYAL SHOW.

Citrus growers should note that additional classes have been provided for competition at the Royal Agricultural Show to be held at Melbourne next September. Details are obtainable from the Secretary, Mr. Henry Schwieger, 360 Collins-street, Melbourne.

## CITRUS PACKING COMPETITION.

**Export Standards.**

In addition to the usual prizes for citrus at the Melbourne Royal Agricultural Show next September, the following is included:—

**Export Packing Competition.**—Open to members, or Co-operative Packing Shed Companies, of any Australian Citrus Growers' Association affiliated with Central or Governing Citrus Association. Exhibit to consist of two export cases (standard size, two divisions), packed with Washington Navel Oranges, one case fruit wrapped, one case unwrapped. Cases and wrappers to bear Kangaroo Brand. Cases to be nailed and labelled as for export, and will be judged, and points allotted, in accordance with the following scale:—PACKING: Nailing of lid and external appearance of case, 10 points; attractiveness and fulness, 15 points; alignment and wrapping, 20 points; total, 45 points. FRUIT: Size and shape, 10 points; color and quality of peel and pulp, 20 points; uniformity of color, 5 points; condition and solidity, 10 points; freedom from disease, bruise and blemish, 10 points; total, 55 points. First prize, £12 (presented by Messrs. M. Isaacs and Sons Ltd., London); second prize, £7; third prize, £3. Entry fee, 10/-.

**Isaacs Shield.**—A shield, valued at £21, presented by Messrs. M. Isaacs and Sons Ltd., of London, will be competed for in perpetuity in the above class, the shield to be held for one year by each winner, and to be returned to the Secretary of the Society prior to the opening of the following Show.

# New South Wales.

## MURRUMBIDGEE IRRIGATION AREAS.

**(By Our Correspondent.)**

Leeton (19/6/25).

**Fertilisers.**—The experiments of the State Agricultural Department are not of the complete character to warrant a definite expression of opinion. However, the fertilisers' organisation (comprising the various artificial manure concerns of the State) has prepared a variety of mixed manures for different purposes, and where tried on these areas, satisfactory results have been obtained. Mr. H. R. Alexander (late Land Settlement Officer for the Irrigation Areas) is identified with the fertilisers' organisation, and is concentrating all his attention on these trials.

**Ploughing of Orchards.**—Several of the orchardists are starting to plough in the green pastures, but a number of them prefer to delay the operation till August or September, claiming they will get a better benefit from the additional green manuring.

It has been raining heavily for several days, with a cold snap, and after such a condition we generally have somewhat warmer weather. This will have the natural result of bringing on the pastures in the orchards, and those who have delayed ploughing will benefit by the extra green manuring when ploughed in.

**Price War.**—The likelihood of a price war by California on canned fruits exported to Europe, is causing some anxiety amongst our orchardists and the Government cannery, and the approachment of Australian canners to the Commonwealth Government for a bounty to square up the Australian position will no doubt bring about a satisfactory result.

**Dried Fruits.**—This American competition may be the means of Australia devoting more attention to the matter of dried fruits. Some of the samples of dried Apricots and Peaches that have been exhibited at our local shows cannot be excelled anywhere. Furthermore, when these articles have gone through the cooking stage in an efficient manner, the writer has often wondered why dried fruiting is not more resorted to. Being a cheaper article than the canned fruit, it should recommend itself to the people at large, and develop the fruit taste in our own country.

What is absolutely wanted is a **publicity campaign,** after a style improvised by ourselves, or copy Californian methods of publicity in order to put dried fruits in the foremost position they deserve. Our fruitgrowers' associations might well consider this important development.

**The Leeton Cannery** is going very "slow" at the present time. Of course, this is always a slack time

with it. The cannery has been enabled, fortunately, to get rid of a large portion of its very heavy stocks of canned fruits and jams. I have received from the factory an assortment of its various products. By the time of your next issue, I will have sampled them all, and will give readers some personal ideas.

**The New State Government.**—As far as the cannery is concerned, development is more likely to take place under a Labor Government, which, of course, favours State industrial enterprise. The National Government was never whole-hearted as regards the Leeton cannery, as such a State business was not in consonance with its ideas of non-interference with proprietary concerns. Certainly the first official act of the Labor Government in dipping into the Trusteeship Box at the Treasury, and helping itself per medium of extra salary to members, is not too soothing an introduction to electors of the honest type.

## MURRUMBIDGEE FLOODS.

The recent flood in the Murrumbidgee was greater than that of any previous flood for at least 70 years, even including the great flood of 1891. The Minister for Agriculture points out that during the period when the flood was at its height on 27th May, an immense body of water went past Burrinjuck Dam. In addition to this, a large proportion of the water which entered the storage from the Murrumbidgee, Yass, and other streams, was, as represented by the rise in the level of the storage, temporarily held back by the dam. Had there been do dam, this water would have also continued down the river, and caused the flood height at Gundagai to rise considerably higher than was actually the case, probably from 6 to 10 feet higher than it was in 1891 at Gundagai.

It is pleasing to report that the dam has come through a very severe ordeal in a most satisfactory manner, and has suffered no damage. Portion of an access ladder was carried away by falling water, together with a quantity of sand, but there has been no serious loss at Burrinjuck, except that to the pipe line which was being constructed along the bed of the river from the dam to the hydro-electric power station.

Further heavy rainfall at the end of June caused the rivers to rise. The Lachlan became flooded and rendered 1,500 people homeless at Forbes.

The Annual Conference of the Fruitgrowers' Federation of N.S.W. was held in June, when many important matters were decided. Further details next issue.

## ORCHARD TAX IN N.S.W.

### Embodied in Plant Diseases Act.

An act dealing with Plant Diseases has become law in New South Wales, and section 19 of this act provides for the registration of orchards and the payment of a registration fee.

As the Fruitgrowers' Federation of New South Wales has for some time past been endeavouring to have a Plant Diseases Bill enacted, and as there seemed to be little hope of getting such a Bill as well as an Orchard Tax Bill through Parliament owing to the large number of measures on hand by the last Government, it was decided to include in the Plant Diseases Act a section covering the main requirements of the proposed Orchard Tax Bill.

This Act was assented to in December last, but has not yet been brought into active operation as its main provisions are to be covered by regulations.

The Department of Agriculture is drafting regulations which will be submitted to the N.S.W. State Fruit Advisory Board before adoption.

**Griffith.**

During the summer season the Griffith Producers' Co-operative Association handled over 4,000 tons of fruit and is expected to pack 70,000 tons of citrus this season. For next year the Company has secured the sole buying agency for the Griffith area of all canning fruits required by the Sydney canneries, also the Leeton cannery.

In regard to citrus, the company is not exporting any Navel Oranges to England, but expects to send between 2,000 and 4,000 bushels of Valencias.

The Area is still struggling with its problems. None are solved yet, but there is a distinct hope that the new Government will materially alter the conditions and give the settlers a push onwards.

**Bathurst.**

At the annual meeting of the Bathurst branch of the N.S.W. Fruitgrowers' Federation, the following officers were elected:—President, Mr. R. Gordon Edgell; Vice-Presidents, Messrs. H. S. Wark, R. W. Peacock, O. Hollis and G. Jenkins; Hon. Sec., Mr. E. Ray; delegates to N.S.W. Deciduous Growers' Association, Messrs. R. W. Peacock, H. G. Edgell and E. Ray.

Freight reductions were requested.

**Primary Producers' Bank.**—Details to hand regarding the operations of the Primary Producers' Bank reveal that substantial and satisfactory progress is being made.


# IMPERIAL FRUIT SHOW

**Holland Park Hall, London**

**OCT. 30th---NOV. 7th 1925**

First promoted in 1921 to foster the Imperial Fruit Trade, the Imperial Fruit Show is increasing in popularity yearly, and is now generally recognised as the annual rendezvous of all the progressive elements in the Fruit Industry.

## £2000 PRIZES for Fruitgrowers

Australian growers will be interested in the competition for fruit grown commercially anywhere in the **BRITISH EMPIRE**

Classes are provided for Apples, Oranges, Tomatoes, Grapes, and new non-returnable packages, for which £2000 in cash prizes and trophies is offered.

A Special Challenge Cup is being offered this year for the best exhibit of Oranges grown in the British Empire.

*Schedules of Classes and Sections can be obtained*

*FROM THE*

**FRUIT WORLD PTY. LTD.**

**9 QUEEN ST., MELBOURNE**

*Other enquiries relating to trade exhibits and rates for advertisements in the SHOW CATALOGUE should be addressed to--*

*The Secretary,*
*18 Bedford Square,*
*London, W C. 1*

# Canned Fruit Position.

THE position relative to the canned fruit industry in Australia warrants patient investigation. Summarised, the position is this: the Australian pack totals 1,200,353 cases; the Government will permit the export of 23 per cent., totalling 278,118 cases, thus throwing 77 per cent. on the Australian market, which is far beyond the capacity it can consume. (1) Canning factories request the opportunity for exporting at least another 165,000 cases of the quality known as the "domestic" pack,—which is recognised as being equal in quality to the Californian "standard" grade.

The Californian canners have fixed standards which allow them to export both a second and a first grade pack, which naturally increases the consumption.

In America the fruit canners have decided their own standards—on sound commercial lines—with the result that many grades of fruit are processed and marketed under a label which clearly sets out their quality, whether it be "fancy," "choice," "standard" or "waterpack," as the case may be. This allows the Californian canners to export any section of their pack, provided the contents be correctly described by the label.

HAMBURG
(GERMANY)
J. H. Lutten & Son
Hamburg (Germany)
Fruit Brokers & Auctioneers
Established 1835
FINEST TABLE APPLES
A SPECIALTY
Sale Room "Fruchthof"
Consignment of Apples Solicited
Best market values and
most favorable conditions
Cash advances made if desired

In Australia, as a result of the standards prescribed by the Government, fruit that is classed and exported as "standard," is in reality equal to the Californian "choice," whilst our "domestic" pack, which is debarred from being exported, is equal to the Californian "standard."

(2) The need exists for a bounty on export in the terms of the Prime Minister's speech at the Sydney Royal Show. This matter has to be frankly faced. For many years past, the policy of the Government has been to encourage the production of canning fruits on irrigated lands. In irrigation works, the Federal and State Governments have many millions of pounds invested. The production of canning fruits—much of which is the work of repatriated soldiers—is far in excess of Australian requirements; in fact, with the new areas now coming into bearing, there must, of necessity, be increased factory accommodation to process the fruit. It is considered to be impossible to secure private capital for this enterprise, seeing that the market for the product is so hazardous. The Shepparton cannery is receiving £20,000 additional capital from the State Government to increase its factory in order to handle the fruit from the new soldier settlements which are now coming into bearing. A new factory is contemplated at Ardmona, a pioneer settlement, as it is feared that the fruit from this district will now be shut out from co-operative and private canneries, because of the shortage of factory accommodation.

And for the fruit thus processed the Government must face and provide finance for marketing in the way of bounty on export. What other way is there out of the impasse?

The fruit costs an average of approximately £11 to £12 a ton delivered to factory, and even then it is doubtful if growers are receiving the bare cost of production. Californian factories are paying £7/10/- per ton for similar fruit. Australia is "blessed" with a Federal Arbitration Court, which has imposed a rigid system of wages and conditions. The tariff is designed to protect implement and other manufacturers, in order to build up secondary industries, but when it comes to selling Australian canned fruit abroad, it is evident our prices are above world's parity. Growers are thus asking for the enunciation of a

**settled policy of bounties**

on export to equalise the tariff and other conditions imposed by law. Failing this, it is inevitable that large areas now under fruit must become worthless, and that the settlers must seek other than primary production to earn a livelihood.

In the sugar industry (the product which so vitally affects the fruit processing industry) a system has been evolved by the aid of both the Queensland and Federal Governments, by which the growers receive a profitable price for their products, and the whole system of payments to workers as well as to mills and refineries, is defined. For this the public pays, and any surplus must be exported at a loss, because the price is much higher than the world's parity.

If the present position be not economic, then the Governments must take their share of the responsibility for the creation of the present conditions, and must see to it that their own pioneer irrigation and ex-soldier settlers are not penalised.

# Export of Pears.

Pear growers at Shepparton and elsewhere are greatly upset because of the failure of the shipment of 6,476 cases of Williams Pears by the s.s. "Surrey." The details of shipment were attended to by the State Rivers and Water Supply Commission, and the Department of Agriculture.

The feeling is the more acute because Williams Pears shipped at a lower temperature by private enterprise were a complete success, and brought highly remunerative returns to the growers.

The grounds of complaint voiced by growers are:—(1) That unwarrantable delays occurred in supplying paper and cases. Instances are quoted where the cases were received only two days before the boat sailed. Thus the packing was not as gentle as it should have been, and (2) the Pears were not all pre-cooled for a week prior to shipment—an essential feature of "Somerset" conditions. (3) The temperature on the voyage was reported to be 34 degrees, in the face of proved experience that lower temperatures were necessary.

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FRUIT OF ALL DESCRIPTIONS
All Consignments for U.K. will have Personal Supervision and Attention
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Mr. J. H. Lang, Harcourt, writes: The shipment of W.B.C. Pears forwarded per s.s. "Surrey" has unfortunately not proved the success anticipated. The prices realised were from 3/6 to 7/9 per half-case; an odd line of Beurre Bosc sold for 10/9.

Several factors were responsible for this poor result. The vessel took 58 days on the voyage instead of 45. The advanced condition of the Pears also necessitated the disposal of the whole cargo at Hull, the first port of call, instead of sending a portion on to London as intended. This was evidently more than the market could absorb for immediate use.

**The principal reason, however, was the high temperature prevailing throughout the voyage.** According to press reports, this was maintained

at 34 deg. F., rising to 38 deg. F. four days before arriving at destination.

At an address before the Australian Fruitgrowers' Conference at Hobart last year, Mr. Wakefield stated that it was possible to arrange the temperature on the boat so that the fruit would arrive in the best marketable condition—firm enough for commercial purposes, yet ripe enough for consumption, but until more definite information had been obtained as to the cold storage life of each particular variety, he favoured a temperature of 32 deg. F. to obtain the maximum life of the fruit.

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**Foreign Apples a Speciality.**

Mr. Wakefield was dealing particularly with Apples. It is well to know that Pears will stand a lower temperature, so that 34 deg. F. was manifestly too high.

Shipments of W.B.C. Pears in past years have given splendid results when carried at **29 deg. F. to 31 deg. F.** The first "Somerset" in 1911, when prices of 10/6 to 18/6 were obtained, also the "Argyllshire," in 1914, when W.B.C. Pears averaged 15/- per case. In comparing these with present day prices, it must be remembered that expenses were then much lighter all round. Take one item alone—freight. It was then about 3/- per case. A shipment this year per R.S.S. "Mooltan" realised high prices, many growers averaging more than 10/- per half case, and as high as 18/9 being obtained. **These again were carried at the lower temperature.**

There is no doubt a market exists for these Pears in England. Our biggest competitor is South Africa, but their season is much earlier than ours. This, combined with the shorter voyage, results in the market being bare of W.B.C. Pears when ours arrive.

The first S. African Pears this year were sold at Covent Garden on 6th January. The "Mooltan" shipment sold on the 7th April, when such Pears as B. Bosc, B. Hardy, D. de Comice, B. Diel and Keiffer were on the market from S. Africa. Could arrangements be made for regular weekly or fortnightly shipments of W.B.C. Pears, under more satisfactory conditions as to temperature, etc., there is no doubt the results would be highly satisfactory to growers, and would help considerably in solving the problem of the disposal of our present production of Pears.

* * *

There is a tendency at present to put all the blame for failure of the "Surrey" shipment on the length of time taken on the voyage.

The fact that the vessel was 13 days late in arriving certainly caused the Pears to land in an overripe condition for commercial purposes. Had the vessel been on time, what would have been the result?

It is not sufficient that the fruit be landed in a firm condition, it must "stand up" long enough to reach the consumer, and for best results this should be from seven to fourteen days.

Seeing the "Surrey's" shipment would not hold up the extra thirteen days in cool storage, how long would it have lasted at ordinary temperatures? Certainly not long enough for best commercial results.

**Undoubtedly the main reason for non-success was due to the temperature being too high during the voyage.**

## WESTERN AUSTRALIA.

Western Australian growers are greatly encouraged at the excellent prices obtained for their Apples on the London market. Orchardists have certainly experienced a period of depression, but far-seeing men know that even violent fluctuations are inevitable, and the good prices now being received are accepted as a vindication of the judgment of those who a year or two ago condemned the pessimistic cry that Apple orchards should be uprooted.

In Great Britain the prices received by Western Australian growers are invariably amongst the highest, buyers paying particular attention to the "Apples in the red case."

# Queensland.

## ORCHARD NOTES FOR JULY.

### The Coastal Districts.

THE marketing of citrus fruits will continue to occupy the attention of growers. The same care in the handling, grading, and packing of the fruit that has been so strongly insisted upon in these monthly notes must be continued, if satisfactory returns are to be expected.

Despite the advice that has been given over and over again, some growers still fail to grasp the importance of placing their fruit on the market in the best possible condition, and persist in marketing it ungraded; good, blemished, and inferior fruit being met with in the same case. This, to say the least, is very bad business, and as some growers will not take the necessary trouble to grade and pack properly, there is only one thing to do, and that is to insist on the observance of standards of quality, and see that the fruit offered for sale complies with the standards prescribed, and that cases are marked accordingly.

Where the crop has been gathered, the trees may be given such

**winter pruning**

as may be necessary, such as the removal of broken or diseased limbs or branches, and the pruning of any superfluous wood from the centre of the tree (writes the Queensland "Journal of Agriculture.") Where **gumming** of any kind is seen, it should be at once attended to. If at the collar of the tree and attacking the main roots, the earth should be removed from around the trunk and main roots—all diseased wood, bark, and roots should be cut away, and the whole of the exposed parts painted with Bordeaux paste.

When treated, do not fill in the soil around the main roots, but allow them to be exposed to the air for some time, as this tends to check any further gumming. When the gum is on the trunk or main limbs of the tree, cut away all diseased bark and wood till a healthy growth is met with, and cover the wounds with Bordeaux paste.

If the main limbs are infested with scale insects or attacked by any kind of moss, lichen, or fungus growth, they should be sprayed with lime sulphur.

Towards the end of the month all young trees should be carefully examined for the presence of elephant beetles, which, in addition to eating the leaves and young bark, lay their eggs in the fork of the tree. When the young hatch out they eat their way through to the wood, and then work between the wood and the bark, eventually ringbarking one or more of

the main limbs, or even the trunk. A dressing of strong lime-sulphur to the trunk and fork of the tree, if applied before the beetles lay their eggs, will act as a preventive. In the warmer localities a careful watch should also be kept for the first appearance of any sucking bugs, and to destroy any that may be found. If this is done systematically by all growers, the damage done by this pest will be very much reduced.

**Citrus** trees may be planted throughout the month. Take care to see that the work is done in accordance with the instructions given in the June notes. All worn-out trees should be taken out, provided the root system is too far gone to be renovated, but when the root system is still good, the top of the tree should be removed till sound, healthy wood is met with, and the portion left should be painted with a strong solution of lime sulphur. If this is done the tree will make a clean, healthy growth in spring.

The inclusion of a wide range of varieties in citrus orchards—and which has been the general practice—

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**PROMPT RETURNS**

is to be deprecated. Even in new plantations there is a tendency to follow the same unprofitable lines. Far too much consideration is given to the vendor's description or the purchaser's appreciation of a particular variety or varieties. Individual tastes must be subordinated to market requirements, and the selection of varieties to the best available kind of early, medium, and late fruits. Amongst Oranges, Joppa should be placed first, Sabina for early fruit, and Valencia or Lue Gim Gong for late markets.

In **Mandarins** local conditions influence several varieties, and since the introduction of the fungus known as "scab," the inclusion, particularly on volcanic soil, of the Glen Retreat and Emperor types is risky. In alluvial lands, Emperor and Sovereign (an improved Glen Retreat) are the most profitable, though Scarlet in many places is worth including, with King of Siam as a late fruit. This commanded the highest price realised for Mandarins last season.

Land intended for **Bananas** and **Pineapples** may be got ready, and existing plantations should be kept in a well-cultivated condition so as to retain moisture in the soil.

**Bananas** intended for southern markets may be allowed to become fully developed, but not coloured, as they carry well during the colder months of the year, unless they meet with a very cold spell when passing through the New England district of N.S.W.

The winter crop of smooth leaf Pines will commence to ripen towards the end of the month, and when free from blackheart (the result of a cold winter) or from fruitlet core rot, they are good for canning, as they are of firm texture and stand handling. Where there is any danger of frost or even cold winds, it pays to cover Pines, and also the bunches of Bananas. Bush hay is used for the former, and sacking for the latter.

**Strawberries** should be plentiful during the month, provided the weather is suitable to their development, but if there is an insufficient rainfall, then irrigation is required to produce a crop. Strawberries, like all other fruits, pay well for careful handling, grading, and packing, well-packed boxes always realising a much higher price than indifferently packed ones on the local market. Where Strawberries show signs of leaf blight or mildew, spray with Bordeaux mixture for the former, and with sulphide of soda for the latter.

When **Custard Apples** fail to ripen when gathered, try the effect of placing them in the Banana-ripening rooms, and they will soon soften instead of turning black.

### The Granite Belt, Southern and Central Tablelands.

July is a busy month for the growers of deciduous fruits, as the important work of winter pruning should, if possible, be completed before the end of the month, so as to give plenty of time for spraying and getting the orchard into proper trim before spring growth starts.

In **pruning**, follow the advice given in the June number; and if you are not thoroughly conversant with the work, get the advice of one or other of the Departmental officers stationed in the district.

Pruning is one of the most important orchard operations, as the following and succeeding seasons' crops depend very largely on the manner in which it is carried out. It regulates the growth as well as the number and size of the fruit, as if too much bearing wood is left, there is a chance of the tree setting many more fruits than it can properly mature, with a result that unless it is rigorously thinned out, it is undersized and unsaleable. On the other hand, it is not advisable to unduly reduce the quantity of bearing wood, or a small crop of overgrown fruit may be the result.

Apples, Pears and European varieties of Plums produce their fruits on spurs that are formed on wood of two-years' growth or more; Apricots and Japanese Plums on new growth, and on spurs; but Peaches and Nectarines always on wood of the previous season's growth. Once Peach wood has fruited, it will not produce any more from the same season's wood, though it may develop spurs having a new growth or new laterals, which will produce fruit.

The pruning of the Peaches and Nectarines, therefore, necessitates the leaving of sufficient new wood on the tree each season to carry a full crop as well as the leaving of buds from which to grow new wood for the succeeding year's crop. In other words, one not only prunes for the immediately succeeding crop, but also for that of the following season.

All prunings should be gathered and burnt, as any disease that may be on the wood is thoroughly destroyed. When pruned, the trees are ready for their winter spraying with lime-sulphur.

All kinds of deciduous trees may be planted during the month, provided the ground is in a proper state to plant them. If not, it is better to delay planting until August, and carry out the necessary work in the interval. The preparation of new land for planting may be continued, although it is somewhat late in the season, as new land is always the better for being given a chance to mellow and sweeten before being planted. Do not prune vines yet on the Granite Belt; they can, however, be pruned on the Downs and in the western districts.

Trees of all kinds, including citrus, can also be planted in suitable situations on the Downs and western districts, and the pruning of deciduous trees should be concluded there. If the winter has been very dry, and the soil is badly in need of moisture, all orchards in the western districts, after being pruned and ploughed, should receive a thorough irrigation (where water is available) about the end of the month, so as to provide moisture for the use of the trees when they start growth. Irrigation should be followed by a thorough cultivation of the land to conserve the water so applied. As frequently mentioned in these notes, irrigation and cultivation must go hand in hand if the best results are to be obtained, especially in our hot and dry districts.

## LEAGUE OF FREEDOM.

The League of Freedom which has been organised to take away from the Committee of Direction certain powers which are considered to be against the best interests of the growers, has conducted successful

meetings in several fruit-growing districts.

**Co-operation with Agents.**

**"As a result of negotiations between representatives of the Granite Belt League of Freedom and the Brisbane Fruit Merchants' Association, an agreement has been drawn up and signed by the parties, under the terms of which the growers hope to stabilise market prices, and dissipate the unwarranted suspicions which occasionally have arisen between the grower and the seller."—are the words in an official statement recently issued.**

Gerald Da Costa

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South West House, Greenmarket Sq., Cape Town, South Africa.

Following long discussions between the Granite Belt League of Freedom, and the Brisbane merchants, a statement was issued in the above terms and continued:—

**Terms of Agreement.**

"Following are the terms of the agreement reached between the Brisbane Fruit Merchants' Association and the Granite Belt League of Freedom:—

(1) An inspector to be in the markets, paid by the growers.

(2) Account sales or advice to be posted within 48 hours of receipt of consignments. Cheques weekly or earlier if preferred.

(3) A clear and simple method of bookkeeping to be adopted and a common system of keeping sales slips inaugurated throughout the markets.

(4) Books to be open for inspection on demand, either by grower or his authorised agent.

(5) It shall be the policy of the Fruit Merchants' Association not to sell good quality fruit under cost of production to the grower, namely, 2/- a half-bushel case, and 4/- a bushel case; any consignments not up to standard to be referred to the growers' inspector.

(6) Growers forwarding fruit or produce for sale packed in a dishonest manner to be reported to growers' inspector, and if deemed advisable, proceedings to be taken. Should it be proved to the satisfaction of the association that any of its members are acting dishonestly, he shall forthwith be expelled from the association, and proceedings taken.

(7) In the event of large consignments not being cleared, and it being necessary for the inspector to sell to the factories, no commission will be charged by the agent concerned. The agents agree if the market is glutted to help each other to dispose of the consignments forwarded.

(8) Friendly conferences between growers and the association to be held from time to time to consider matters of mutual interest, such as opening up new markets, improvement in transit, and reductions in freight where possible."

**Limitation of Agents Opposed.**

**Woombye.**—At the annual meeting of the Woombye Fruitgrowers Ltd. the balance sheet showed a trading turnover of £17,824, and a net profit of £184, which added to reserves now totalled £1,447.

The retiring directors, Messrs. J. T. Wilson, W. M'Clintock, R. J. Waldon, A. Tainton, and H. Hackney were re-elected with the exception of the last mentioned, whose place was filled by Mr. M. E. Moorehouse. The following resolutions were carried, to be placed before the Committee of Direction:—"That the present method of limitation of agents in the south is not in the best interests of the growers." "That the tenure of office of the members of the Committee of Direction be not increased to three years as proposed." "That the proposed levy on citrus fruits shall not exceed ½d. a case." "That all matters of an important nature shall be first submitted to growers before being put into operation."

**Palmwoods.**—At the monthly meeting of the Fruitgrowers' Association, Mr. R. Dunning presiding, Mr. L. G. Swain addressed the meeting on the Co-operative Associations' Act. It was decided to register the association as a ward of the P.M.B. Society; also to oppose any increase of the levy on citrus fruits.

Members considered that the present method of appointing selected agents to handle Queensland fruits on the southern markets gave no incentive to those agents to secure the highest prices, and also prevented a number of good agents that were excluded from showing their capabilities. It was resolved to request the Committee of Direction annually to revise the lists of selected agents, and that the two agents securing the lowest average prices, according to Committee of Direction records, be deleted, and a fresh two agents appointed.

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**WADE**
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*Fruit Merchants*
Prompt Advices of Sales
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PRINCES WHARF, HOBART
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The increasing of the term of office of the Committee of Direction and sectional group committees from one year to three was opposed, and it was decided that the sectional groups and half the members of the Committee of Direction should retire annually. The association nominated the following representatives to the sectional group committees:—Banana group, Mr. J. Stemp; Pineapple group, Messrs. L. Stephenson and J. L. Smith; Citrus group, Mr. R. Dunning; other fruits group, Mr. W. Browne.

# South Australia.

### Orchard Registration Bill Supported.

A meeting of the executive of the Fruitgrowers and Market Gardeners' Association was held at the end of May. The President (Mr. J. B. Randell) presided. A draft copy of the proposed Orchard Registration Fee Act was submitted to the meeting. The proposed Act provides—

1. That a fee of 1/- an acre be levied, in the form of a registration fee, on fruit or market garden land upon which any produce grown is sold on South Australian markets.

2. That a minimum of 10/- an acre be charged to every individual not holding that acreage and trading on such markets in South Australia.

3. That the funds be collected in a manner similar to that adopted under the Phylloxera Act. The funds to be handed over to the Association to be dealt with by the Fruitgrowers' Fruit Pool Society Limited, as its representatives.

4. That the objects shall be (a) to purchase the surplus fruits sold on the market and convert same into jams, preserves, pickled fruit, drinks, or other lines, which would prevent the same from coming into direct competition with supplies or ordinary channels of distribution; (b) to provide other channels of distribution, which would help over glut periods; (c) that the Act be made for a period of five years, at the end of which time renewal or withdrawal could be made.

**Allocation of Funds.**

The funds contributed would relieve members of the present voluntary subscription, and would be allocated to each section of the industry, such as the citrus, Apple, or soft fruit growers for furthering their respective interests, whether it be advertising, developing channels of distribution, such as export trade, or the purchasing of surplus fruit and vegetables on the market during glut periods, when even small surpluses tend to disorganise the whole trade, and make the price for the grower below the cost of production. In the past the ordinary channels of distribution have failed to cope with gluts or surpluses, and the results are usually inimical to not only the producer, but also the merchants and the retailers.

The supporters of the proposal emphasised what the results were to the growers in the case of handling the last Apricot crop, which was a record one, and the fact of the voluntary fruit pool operating relieved the market of the surplus, through which means the growers realised satisfactory prices on the market for their best samples, and prices ruled from 1/- to 2/- a case more than generally estimated, had there been no pool. As the Government could not be expected to continue financing such pools, it was expedient for growers to devise other means for raising funds for the accomplishment of the same purpose. Therefore growers had nothing to lose but much to gain by supporting the proposal and giving it a trial.

**Queensland System Not Favored.**

It was not proposed to imitate the Queensland system, and make a compulsory fruit control. The main objects were to cope with surpluses and develop the channels of distribution generally by the most equitable means. After discussing the various aspects, it was decided to refer the matter to the branches for consideration and further deal with the matter at next meeting.

**Campbelltown Support.**

At a meeting of the Campbelltown Branch, the proposed Act was discussed. It was unanimously decided to instruct the delegates to support the proposal.


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MURDOCH BROS., Hobart


### Conference of Agricultural Bureau.

The annual conference of the River Murray branches of the South Australian Agricultural Bureau was held at Waikerie at the end of May, there being a large representation of delegates from Renmark, Ramco, Moorook, Block E, Mypolonga and Waikerie branches.

### MURRAY VALLEY NOTES.

Pruning commenced when the early frosts caused the leaves to fall. In some orchards and vineyards the pruning operations are well advanced.

Ploughing in of cover crops has already commenced, for where the crops were sown early, the timely rains brought the plants on quickly.

Ploughing operations should be thorough, little value can be claimed for merely scratching the soil in the Murray Valley Irrigation Areas. The summer heat is intense, consequently surface roots plants suffer from heat and lack of moisture.


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**Deep ploughing** encourages deep rooting of the plants, thus the moisture is taken further into the land, which is cultivated deeply, and is retained to a large degree, the roots have not only a large water supply, but a bigger feeding area.

The contention that citrus trees are shallow rooted is only partly true. They are shallow rooted and surface feeders where the cultivation is shallow, but where the cultural operations are deep the roots are found further down in the soil.

Kelmscott, W.A.,
1st May, 1925.

I have found the "Fruit World" both useful and interesting.—C.M.

# Muriate of Potash for Apples.

### Experiences in Western Australia.

(By a Contributor.)

A GOOD deal of uncertainty exists amongst fruitgrowers in Australia as to which of the two forms of potash—muriate or sulphate—is the better for general use.

In this connection the experience of Mr. G. H. Simpson, of "Rokewood," Karragullen, W.A., is interesting. It may be said at once that Mr. Simpson is a warm advocate of muriate, having in recent years tried both forms.

"Rokewood" is situated in the hills district, about thirty miles from Perth, and, before clearing, was fairly heavily timbered country—indeed, the native forest still surrounds the property. The surface soil is a very light sandy loam, overlying clay, and the land undulates slightly.

The rainfall averages 32 inches annually, and it can hardly be said that this particular orchard possesses any special natural advantage unusual in country devoted to Apple growing in Australia.

The Officer in Charge of Fruit Industries in W.A. (Mr. G. W. Wickens) recently inspected "Rokewood," and commented that he was confident that no orchard in Australia could show better growth and progress than it has done since it came under Mr. Simpson's control. I saw photos of Granny Smith Apple trees taken in the three successive years 1922, 1923, and 1924, when the trees were five, six and seven years old from the whipstick, showing the great strength and vigour of growth capable of sustaining the weight of two, three and four men in the years mentioned. As well as Mr. Simpson himself in these photos are Messrs. H. Lake (a well-known grower of Bridgetown, W.A.) and J. Ramage, formerly connected with the Departments of Agriculture in Victoria and Western Australia, and now a partner in the firm of Messrs. Paterson & Co. Ltd., Perth. Another illustration of the strength of the young wood in this orchard is afforded by the grouping of five men in a young Dunn's seedling. The average weight of the five men the 7-year-old tree is bearing (instead of Apples at the time) is eleven stone.

Remarkably good yields of fruit have been taken from the orchard, year after year, and up to three cases of export fruit were picked in 1922 from 5-year-old trees, and since then the health and vigour of the trees disprove any suggestion that this early heavy cropping has in any way diminished the productivity of the young trees.

The orchard really consists of two stages of development. The older section has now been eighteen years under cultivation, the younger—eight years. Needless to say, spraying, cultivation and drainage are all most thoroughly carried out, and regular and scientific fertilising is practised. Green manuring is the principal source of nitrogen, but bonedust, or alternatively an organic manure, carrying 10.5 per cent. phosphoric acid, 3 per cent. nitrogen, and 3 per cent. potash, has also been applied at the rate of from three to five hundred weight per acre, according to the age of the trees. But, it is Mr. Simpson's invariable practice to apply a minimum dressing per tree of 3 lbs. muriate of potash, rising in the case of the large trees (that is, those now 18 years old) to 4½ to 5 lbs. per tree.

A visit to "Rokewood" is deeply interesting, and it is hard to say whether it is more so when the trees are heavily laden, just forming fruit or immediately before pruning, for at each period there is evidence of wonderful production or promise of more.

Leader growth per year of over eight feet is not at all uncommon in the young orchard, and these pruned back to 9 or 12 inches produce a solid, dense form and sturdy growth that results in clusters of fruit such as that shown at the base of the six year Yates. (See illustration.)

The colouring of the fruit is naturally splendid, and this certainly can be directly attributed to the heavy potash dressings, as, probably in major degree, can also be the great strength of limb in the young trees already alluded to.

It is not usual in this country for growers to fertilise young Apple trees liberally, and there may not be many orchards in Australia where such considerable potash dressings are given, even to trees in full bearing, as Mr. Simpson gives regularly to his young trees, but if one questions the wisdom of his practice, he laughingly points to the trees themselves—and through them may be seen his newly completed and handsome residence — and the visitor goes away thinking deeply.

* * *

**Memo.**—It is worthy of note that the retail price of muriate this season is about pre-war level, though it is expected to firm. Users are therefore offered supplies now at particularly favourable prices.



LEFT—Yates' Apple Tree, 6 years old. Note cluster of uniform size fruit.
TOP RIGHT—Dunn's Apple (Munroe), 7 years old, average weight of 5 men in tree 11 stone.
LOWER RIGHT—Yates' 7 years. Mr. G. H. Simpson and his little daughter on extremity of branch, showing strength of wood.

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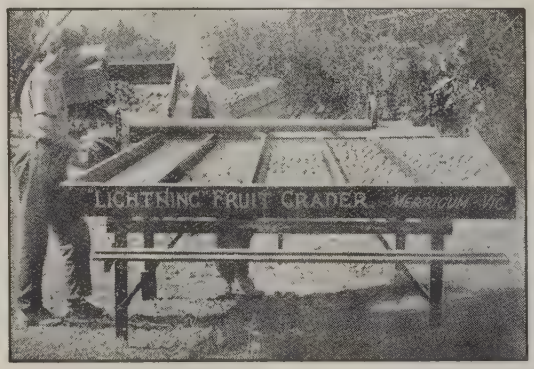
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## Planting Hints.

### Fruit Trees and Berry Bushes.

Now is the time for planting fruit trees, vines and berry fruits. Good drainage is absolutely imperative. Prepare the ground by deep digging and pulverising the soil. A layer of old manure may be mixed with the soil at the bottom, allowing a blanket of earth between the manure and the newly-planted fruits.

Some beginners, when planting a fruit tree, make the mistake of digging a hole of just sufficient size to receive the roots, while others again do not even made a hole of this size, but allow the roots to be curled up inside the hole. These are great mistakes. Before planting a fruit tree, an area should be dug at least 5 feet square, in order that the roots, as they develop, may have a free run.

Both the black fruiting Passion-fruit, Passiflora edulis, and the Banana Passion-fruit, Tacsonia mollissima, are grown commercially. The latter is particularly hardy, a rampant grower, and an evergreen. This plant fruits best when the vines are trained so that the fruits can hang well down.

The black fruiting Passion-fruit is subject to frosts, especially in the first year of its growth. Newly planted specimens should be protected where there is any danger of frost. If the ground is still warm, plants may be set out, giving a lime dressing to the soil; but if there is any doubt, it is better to defer planting until the spring.

* * *

### Berry Fruits.

The **Loganberry** is a delicious fruit, whether served for table purposes, used for pies, or for jam-making, and is very easily cultivated. It is a rampant grower, and needs ample space for development and feeding. Under commercial conditions, the plants are set 8 feet apart, and are grown on a trellis of three wires.

The Loganberry is a gross feeder, and needs an ample supply of manure. Well rotted stable manure is excellent. Commercial fertilisers containing such elements as potash, nitrogen and phosphoric acid should be applied. The Loganberry seems to thrive best in deep, well drained, loamy soil of a light texture, that can be easily maintained in a fine state of cultivation. If the ground is at all inclined to be heavy, a dressing of lime should be given. Do not apply lime and manure at the same time—allow at least a month to elapse between. Once established, Loganberries will continue producing fruit for many years, the essential cultural hints being to give ample supplies of manure and water during the growing season, and to cut out during the early autumn, the arms or canes which bore fruit the previous season. Loganberries bear their fruit on the new canes which develop each season.

**Gooseberries** are especially serviceable for domestic purposes when in a green condition. It is the first fruit that makes its appearance in the early spring, and is eagerly sought after for pie-making, stewing, jam-making, bottling, etc.

Set the plants about 4 feet apart, in well worked soil, which has sufficient drainage facilities. If allowed to grow at will, the Gooseberry bush will soon assume an almost impenetrable thicket, the fruits being dwarfed, and only gathered with considerable inconvenience and injury.

Fruits will be produced from nearly all parts of the bush, except the present year's wood and the old barren wood; most of the finest fruits are borne on the one-year-old wood. As the wood gets older, it begins to fail, and must necessarily be replaced by younger and more vigorous shoots. The general

**aim of the pruner**

will be to so handle his bushes that a supply of strong new wood is always coming on, and training these shoots

so that they occupy positions in the bush, from which the fruit may be gathered easily and quickly, not allowing the shoots to cross each other. After a portion of the bush has become attenuated and barren, it should be removed and another growth trained into position.

During the growing months the bushes should receive efficient cultivation, always remembering that one is dealing with a surface-rooting bush, and not subjecting the roots to excessive injury from too deep working.

Applications of stable or cow manure will be of great advantage in assisting in the general growth and development of the plantation. Where sufficient of these cannot be obtained, commercial fertilisers should be used. Care should be taken in the mixing of these, especially in the quantity of available nitrogen in the mixture, heavy supplies of which element have been found to encourage the development of mildew, also a rank growth of wood that will not ripen well, being weak in character and fruiting.

The following varieties have been found serviceable:—Crown Bob, Roaring Lion, Industry, Downing and Champion.

Set **Strawberries** in rows 3 feet apart and 12 inches between the plants in the rows. Trim the leaves and roots before planting.

Strawberries and Currants do particularly well in the hill districts, where the soil is of light texture and rich in humus and plant food. The situation must be sheltered, as these plants thrive in the slopes and gullies created by the hills, especially where the rainfall is good, and where there are spring and early summer showers alternated by warm sunshine.

## WHEELER'S HILL (VIC.).

Returns from London by the Elinora Orchard show that good prices continue to be obtained. For Packham's Triumph Pears ex s.s. "Otira," 21/- per case for 252 cases was obtained. Apples sent on various ships sold late in April realised an average of 16/-. All varieties were reported on as being in good condition, well graded and packed.

Mr. Aubrey Stott, in charge of Elinora, reports that ploughing has been completed; pruning of 13,000 trees is well advanced, and preparations are being made for winter spraying.

On the question of varieties for London market, just as good prices were obtained for such as Red Reinette and Shorland Queen as for Jonathan. It hardly matters what varieties are shipped, prices are about the same so long as the fruit is well graded and packed.

---

**New Apple, "Elsie Grant."**—This new variety, as illustrated in June "Fruit World"—a cross between Rokewood and Yates—is creating attention. A consignment was recently sold at 12/- per case net f.o.r. Mr. T. H. Grant, Beaconsfield, Vic., is offering scions for sale.


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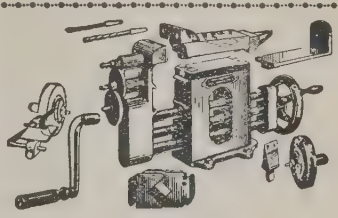
| Purchaser | Principal Prods. |
|---|---|
| Merbein Dehydration Trust, Mildura | Sultanas Raisins etc. |
| Tasmanian Dehydration Pty. Ltd. Bridgewater two plants. | Apricots Prunes Apples |
| Charles Martin, Yackandandah | Prunes |
| Swallow & Ariell Ltd. Port Melbourne. | Carrots Turnips Cabbages, etc. |
| Woorinen Co-op. Pack. Shed, Woorinen | Sultanas Raisins etc. |
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# Tasmania.

## News and Notes.

COLD, frosty weather is being experienced throughout the State. Pruning is in full swing, and orchardists are making preparations for the coming season.

Generally speaking, the 1925 fruit season has proved the most satisfactory since 1913. Prices upon the overseas markets have returned a good average profit to the producer, and the interstate markets have held at good values since the commencement of the season.

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Although the crop was below normal, it is evident that a substantial amount of money will return to the growers, and be circulated amongst the fruit districts. This will enable certain postponed operations, such as drainage, manuring, re-working and orchard extension to take place, besides allowing for the erection of certain cold stores and packing sheds that have been under consideration.

### Fruitgrowers' Conferences.

The annual Fruitgrowers' Conferences will be held at Launceston on July 15th, and at Hobart on July 16th. Amongst the subjects that are down for discussion are:—

Sugar supplies for processing Tasmanian stone and berry fruits; Tasmanian fruitgrowers' representatives on interstate markets; defence fund; committees of agents in Sydney and Brisbane.

The election of the producers' representatives on the State Fruit Advisory Board will be decided by ballot.

### Fruitgrowers' Fund.

The Tasmanian State Fruit Advisory Board is now established with a fund for carrying out its various operations in the interests of the fruit industry.

This matter has been long under consideration, and subject to a number of delays before bringing into effect.

Owing to the incidence of an Orchard Acreage Tax falling so unfairly amongst growers (the range of production in Tasmania varies from 100 to 1000 bushels per acre in the case of Apples) the Tasmanian producers strongly opposed this form of legislation, and supported an export levy.

Difficulties were experienced here in imposing legislation for this, in making the collection without infringing upon State and Federal laws regarding the export of products. Eventually this was overcome by the agreement of overseas agents, shipping companies, and processors to collect a voluntary levy on all consignments going through their hands. The levy (one-sixteenth of a 1d. per bushel) on export fruits, and (one farthing per cwt.) on processed fruits, will produce approximately £600 per annum. This will be sufficient to carry out the general operations of the Board without being dependent on Government subsidy.

### Export of Williams Pears.

The State Fruit Expert (Mr. P. H. Thomas) is in receipt of a brief report, together with the account sales from Messrs. Geo. Monro Ltd., Covent Garden, London, of the experimental consignment of Williams Pears forwarded from Tasmania last February in the experimental chamber of the t.s. "Esperance Bay."

Approximately two-thirds of the consignments arrived in good condition, and realised from 6/- to 8/- per tray, the balance was variable, a portion appearing to have been frozen in transit, and bringing only 3/- to 4/- per tray. The experiment was conducted in co-ordination with the Cambridge Low Temperature Station, who are forwarding a detailed report upon the outstanding features of the experiment at a later date. Messrs. Geo. Monro report inter alia:—"There is no doubt that if you can land this variety of Pear in London in good condition, a good market is assured for it."

### Franklin Show.

A very successful Show was held at Franklin on June 8th, the occasion of the visit of His Excellency the Governor, Sir James O'Grady, C.M.G., who opened the function and addressed fruitgrowers on the value of their industry to the State.

A representative exhibit of fruit was staged from the districts around Franklin, a striking feature being a huge pyramid of Apples erected by the officers of the Fruit Division, and designed by the State Fruit Expert, Mr. P. H. Thomas. This took the form of a number of geometrical figures, worked in highly colored fruits, such as Jonathan, Tasma (Democrat), French Crab, Sturmer, and Cleopatra.

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A Trial Consignment solicited from Growers in all States.

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### Overseas Fruit Export.

Thirty steamers have loaded fruit at Hobart this year and five at Beauty Point. Last season 28 loaded at Hobart, and seven at Beauty Point.

## TASMANIAN STATE FRUIT ADVISORY BOARD.

A meeting of the Tasmanian State Fruit Advisory Board was held at the Department of Agriculture on June 10th. There were present:—Messrs. A. Davies (Chairman), J. H. Astell, F. Walker, N. Campbell, T. J. Eddington, H. Hamilton, B. J. Pearsall, J. P. Piggott, E. H. Thompson (representing Sir H. Jones), and P. H. Thomas (Secretary). Apologies were received from V. J. Shoobridge and V. Skinner.

**Export Grades.**—It was decided to support the action of the Ministers of Agriculture at the recent conference in the adjustment of the export "Plain" grade.

**Fruitgrowers' Fund.**—It was agreed that the daily rate for remuneration of members' expenses be 15/- per day, and that regular meetings be called for the third Tuesday in every quarter. The following accounts were passed for payment:—Members' expenses (statement 10/6/25), £14/13/-; Secretary of Agriculture, £114/1/2; petty cash, £5.

It was decided to place on record an appreciation of the action of those firms who assisted in collecting the levy towards the fund, and to thank them on behalf of the Tasmanian Fruit Industry.

**Fruitgrowers' Conference.**—It was agreed that the Annual Fruitgrowers' Conference take place on July 15th and 16th at Launceston and Hobart respectively.

**Marketing of Fruit.**—After discussing the report forwarded through the Premier from the British Committee appointed re the organisation and sale of Empire food products on overseas markets, and the reply received from the National Federation of Fruit Agents, London, re improving the conditions of fruit marketing, it was decided that a committee comprising the Chairman, Messrs. Campbell, Piggott and Thompson frame a reply to the Premier for communication to the Empire Committee.

**Reduction and Pre-payment of Freights.**—The Secretary read letters received from the Agent-General in reply to the Board's request for the shipping companies to reduce freights, and that the payment of same be made to operate at the port of discharge. Both proposals received consideration by a committee representing shippers and growers in London, but the former definitely declined to consider the request owing to the high rates and charges existent in Australian ports, and that most vessels in the Australian trade were not paying costs of operation. It was decided to publish the correspondence on the matter for the information of growers.

**Damaged Fruit Cargoes.**—It was also decided to publish correspondence received from the Agent-General re claims being made by the National Fruit Agents' Association, London, on behalf of the Board in respect to fruit cargoes damaged in transit.

**Research in Fruit Carriage.**—In reply to a communication received from the Australian Fruit Council, detailing a scheme for the conduct of research work in the carriage of fruit cargoes, the Board decided to reply that it was considered that to prevent duplication, such be directed through the Australian Bureau of Science and Industry, in co-ordination with the Cambridge Research Station.

The following are the subjects listed for discussion at the Fruitgrowers' Conference:—Tasmanian Fruit Representative on Sydney Wharves; Sydney Committee of Agents; Consideration of using interest on Defence Fund in the organisation of the industry; Sugar supplies for processing jam and canned fruits.

## ADVISORY BOARD'S ANNUAL REPORT.

### Interesting Record of Progress.

THE annual report of the Tasmanian State Fruit Advisory Board is to hand, signed by the Chairman (Mr. A. Davies) and the Secretary (Mr. P. H. Thomas). The following is a resume:—

**Defence Fund.**—This fund was inaugurated during the 1923 season, the Board requesting shipping agents to make a levy of 1d. per case on all fruit exported to provide a fund to defend claims arising through fruit damaged in transit. Almost all fruitgrowers agreed to the scheme, with the result that a total collection of £5,760 was made and lodged with the Fund Trustees. £5,000 of the amount has been invested in Commonwealth 1930 6 per cent. stock. A claim has been lodged on behalf of the Board in respect to certain consignments that were damaged through faulty carriage by the Shipping Companies. This will be heard in due course. The Association London Agents have been instructed to continue to lodge claims regarding all consignments arriving in a damaged condition.

**Fruit Carriage Investigation.**—Realising that certain evidence re the general conditions of fruit carriage would be necessary in respect to claims on damaged consignments, the Board, through Professor Flynn, of the Hobart University, availed themselves of the offer of Mr. F. W. Wakefield (a scientist who had been making a study of the occurrence of the condition known as "brown heart" amongst fruit cargoes). Mr. Wakefield's services were enlisted in this respect, and a free passage was provided by the Commonwealth and Dominion line on the "Port Pirie," the Board voting an amount up to £500 from the Defence Fund for the construction of apparatus and expenses of the investigation. Mr. Wakefield's report is yet to come to hand. In addressing the Board, he has been definite in stating that irrefutable evidence has been secured that "brown heart" amongst fruit cargoes is brought about by the conditions they are subjected to in transit.

**Fruitgrowers' Fund.**—In accordance with the wishes of the 1924 Conferences of Fruitgrowers, arrangements were made with overseas exporting agents, interstate shipping companies and fruit processing firms for the collection of a levy of 1-16th of a penny per bushel on Apples, Pears, and stone fruits, and ¼d. per cwt, for berry fruit that went through their hands. As a result approximately £600 should be available for the Board's operations. The Board expresses appreciation for this co-operation with the agents and shipping companies.

**Bonus on Fruit Exports.**—The proposal for a bonus from the Commonwealth Government for a bounty of 1/6 per case on fresh fruit exported overseas was not agreed to by the Government.

**Sugar Conference.**—At the Conference of fruit processors, fruit producers and sugar producers, a delegation from Tasmania attended. Although the fruit producers did not attain their objective, a reduction of £6/5/- per ton is to be made from August, 1925. This, besides tending to increase the sales on Australian markets, should be reflected in improved prices to the fruitgrower for the fruits used in the factories.

**Fruit Census.**—At the request of the Commonwealth Government, a census is being prepared recording the different varieties of fruits which are grown in the State. This information is being compiled throughout Australia, the object being to obtain the potential varietal value of the crops.

**Overseas Marketing of Fruit.**—After a careful examination of various proposals for improving the selling arrangements of fruit in U.K., it was evident that these could not be effected in Tasmania without the co-operation of the Associated London Agents.

A conference was called and held in London, the Agent-General (Mr. Eccles Snowden) was present as representative of the Tasmanian growers. Information is to hand that the matter is still under consideration, and that a further meeting will be held shortly to try and arrange a scheme of action for the 1926 season. The Board records its appreciation for the efforts of the ex-Agent-Gen-



# FERTILISERS——

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eral, Sir Alfred Ashbolt, and the Agent-General, Col. E. Snowden, for the valuable advice and assistance accorded.

During the year the Board received for consideration from the Federal Customs Department a draft of a proposed Bill to exercise complete control over the marketing and selling of fruit overseas. This, upon examination, was found to be against the best interests of the Tasmanian industry, in that this State would not have representation upon the Control Board proportionate to the fruit exported.

**Interstate Marketing of Fruit.**—As the new grades proposed in N.S.W. were deemed too drastic, a protest was entered, and the State Fruit Expert (P. H. Thomas) paid a visit to Sydney and secured a postponement until the Conference of Ministers of Agriculture. This took place in April, when an agreement was reached effecting uniformity with the overseas export standards. The Customs Department has also been requested to amend the "Plain" grade to a blemish allowance of ¼in. in the aggregate. If this be effected, the interstate "C" grade will be eliminated and shipment made to both overseas and interstate markets under uniform conditions. The "Guarantee of Contents" brand, which is imposed by the importing States, was deemed unnecessary, and the Ministers' Conference recommended its elimination.

It was decided to place on record the appreciation of members and fruitgrowers generally for the sympathy and assistance given by the Minister of Agriculture, also to the officers of the Fruit Division for their untiring services.

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**Grubbing Trees.** — The "Digger Winch," which is specially constructed for clearing orchard land, etc., is now being manufactured by the inventors and original manufacturers, the Quick Manufacturing Co., 75 Pender's-street, Thornbury, Vic. During the past few years the "Digger Winch" has been manufactured by Multigears Ltd., under license from the inventor. Mr. Quick states that since he has taken over again he has re-designed the machine, and a number of improvements have been embodied. He will be interested to hear about any land clearing propositions, and give the benefit of his experience.

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You get more from your enemies than from your friends. The more they hate you the more they advertise you.—William Jennings Bryan.

## GRADING AND PACKING FRUIT.

### Illustrated Chart Available.

With the object of assisting growers to properly prepare their fruit for market, the Victorian Department of Agriculture has prepared charts illustrating the correct methods of grading and packing the various fruits.

The first of these charts is now to hand from the Horticultural Superintendent (Mr. J. M. Ward), and deals with the packing of Apples for export and interstate markets.

The various packs are well illustrated, and growers should find no difficulty in following the methods described. Points to remember, and other useful information to those engaged in the fruit industry, are contained in the chart.

Copies of these charts are being circulated among the packing sheds in Victoria, and may be obtained, free of charge, by writing to the Superintendent of Horticulture, 605 Flinders-street, Melbourne.

* * *

### Citrus and Tomato Packing.

Charts illustrating the packing of Oranges and Lemons, also Tomatoes, have been printed. These are available from the Department of Agriculture (Horticultural Division) Melbourne.

## Winter Spraying.

The pests to which attention should be given, while the trees are devoid of foliage, are woolly aphis, red spider, mussel scale.

Unless the woolly aphis is particularly bad, I find it preferable to defer spraying until the buds are beginning to swell, the pests then being more susceptible to the spray (states a Harcourt, Vic., grower).

**Spray Mixture.**—Crude oil and lime make a stock mixture by slaking 30 lbs. lime in a barrel, afterwards making up to 30 gallons. Stir well before using. Mix 4 gallons of lime water with 4 gallons crude oil by pouring from one bucket to another several times, then into spray barrel of water with agitator going. This is sufficient for 100 gallons.

**Red Oil.**—4 gallons to 100 water.

**Lime-Sulphur.**—6 gallons to 100 water. One application should suffice for red spider or mussel scale. Woolly aphis may require more, but it may be blown off by means of the spray gun when spraying for codlin moth.

Black spot is not prevalent in this district, one application of lime-sulphur in the "pink" stage usually being sufficient.

### PRUNING HINTS.

**Pruning the Jonathan.**—As this variety does not spur freely, sufficient laterals should be left uncut to ensure a supply of fruit buds for the following years. These can then be shortened or thinned out as may be necessary. The Jonathan tree makes slender growth, and with a heavy crop of fruit spreads out.

A certain amount of spreading is advisable in order to admit sunlight and facilitate coloring, but if allowed to go too far will interfere with cultivation.

To prevent this, a screw eye placed on the inside of each of the main branches, at a convenient height, and a galvanised wire threaded through these and the ends joined, will hold the branches in position.

**London Pippin** and **Dunn's** Apples spur freely, and when the tree has reached bearing age, the principal work in pruning is the thinning out of the spurs to obtain fruit of best marketable size, care being taken to maintain a reasonable growth of new wood each year.

All trees should be left sufficiently open to admit light for the development of the fruit; this also allows the arsenate sprays to penetrate, and results in cleaner as well as better fruit.

**Rome Beauty**, if left to itself, will bear fruits at the end of the laterals only, and these are apt to get blemished by swinging with the wind. The laterals of a previous year being shortened to a convenient bud will then form fruit buds.

A light crop of Romes means large fruit, which does not keep or sell as well as smaller fruit, so a larger percentage of fruit buds can be left than on most varieties.

**Cleopatra.**—Lighter pruning and heavy crops should be the rule, owing to the tendency of this variety to bitter pit.

---

Pat was a fruitgrower, but he was always a problem. Being agin the Government, he was agin inspectors too. At last the inspector said, "Look here, O'Flaherty, you'll have to spray those trees for scale."

"Sure, and I have sprayed them," replied Pat.

"Ah, have you now. Using crude oil?"

"No, bedad, no rude oil for me. I sprayed with red oil delusion."


Springs!

Big car comfort
at small car cost
with the new springs in the New

for Economical Transportation
CHEVROLET £220

S. A. CHENEY MOTORS Pty. Ltd.
22 Flinders Street, Melbourne

FOR SALE
PRUNE TREES

We have the following varieties of well-grown Prune Trees FOR SALE

Prune D'Agen. President.
Robe De Sargeant. Sugar.
Coates 1418. Coates 1403.
(Latest Californian Prunes.)

Prices are as LOW as they can be made.

For further particulars, write to
D. W. IRISH & SONS
*"Indaola Citrus Grove,"*
BAMAWM, - - Victoria.

# SOFTWOOD CASES

(IMPORTED)

*Cheaper than hardwood if exported.*

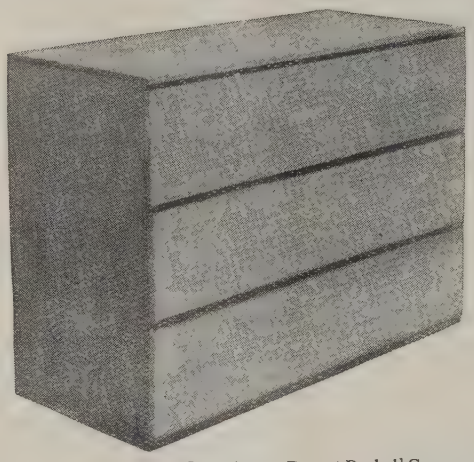
*Cut to Australian Standard Sizes*

**DUMP BUSHEL** with one piece top and three equal piece side

**UPRIGHT BUSHEL** with one piece top and three equal piece side

**DRIED FRUIT CASE** with one piece side and two equal pieces tops and bottoms

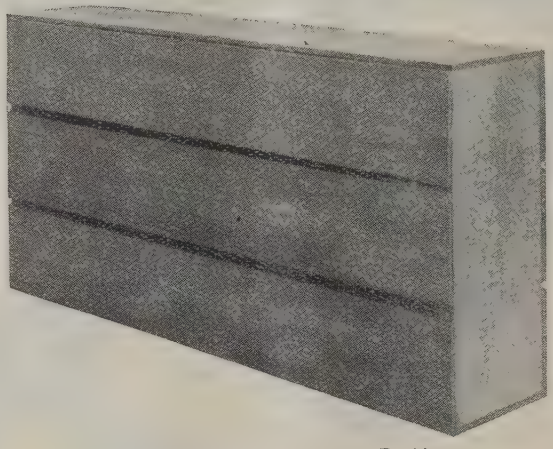
**CANNED FRUIT** with one piece side and two piece tops and bottoms



Australian Apple and Citrus Dump Bushel Case.

## SOME ADVANTAGES IN FAVOR OF IMPORTED CASES

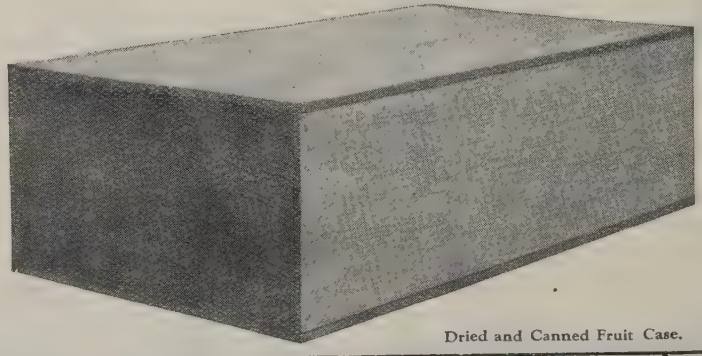
(1) *Full drawback of duty allowed on all cases exported*
(2) *1/3rd less freight than on Hardwood cases*
(3) *25% rebate on rail freight for full trucks*
(4) *All timber cut to exact sizes making it an easy matter to assemble a symmetrical case*
(5) *Every piece of timber fit and ready for use, thereby eliminating waste*
(6) *Can be supplied in shooks, or made up and branded*



Upright Bushel Case with Centre Partition.

**Particulars from the Largest Importers**

# Overseas & Interstate Trading Co. Ltd.



Dried and Canned Fruit Case.

52 Market Street,
Melbourne

*Phone Central 9110*

Also
King William Street,
ADELAIDE

## Answers to Correspondents.

**Walnut Culture.**—A reader at Somerville, Vic., writes:—"I should be glad if anyone could tell me the reason why about half my Walnuts do not have any nuts in them. This occurs every year; the shell is quite the right size."

**Answer** (by Mr. L. J. Wicks, Highbury, S.A.).—All seedling Walnuts are subject to the trouble your correspondent mentions, and more particularly in the damper districts. The trouble is of bacteria origin which works largely in the sapwood of the tree, and therefore cannot be controlled by spraying. There are several very nearly blight resistant varieties, and worked trees of these varieties will prove successful where seedling trees are a total failure.

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**Aphis on Cherry Trees.**—A reader at Young, N.S.W., asks the following question:—What is the most effective spray to kill Black Aphis on Cherry trees? This disease has only appeared in this district during the current year, and unless we can find an effective spray it is going to mean a lot of trouble.

**Answer** (by Mr. C. French, Jr., Govt. Entomologist, Vic. Dept. of Agriculture):—The best remedy is to spray in Spring and Summer with nicotine sulphate. In the Winter (after pruning) the trees should be sprayed with lime sulphur, which destroys the eggs. Mr. French admits that the pest is a troublesome one, but expresses his firm belief, based on experience, that the pest can be controlled in the manner suggested.

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**Marketing of Fruit.**—A reader at Brisbane, Queensland, asks the following question:—"It is claimed by the Committee of Direction of Fruit Marketing in Queensland, and by their adherents that in the State of California there is no such thing as "voluntary co-operation," but that all co-operation is compulsory under the State law so far as the marketing of fruit is concerned, or that some compulsory system of marketing under the State is in force. Is this so?"

**Answer** (by the American Trade Commissioner, Melbourne).—"I do not believe that any such law exists in California, or elsewhere in the United States. A careful search for publications that might touch this subject has been made. Co-operative marketing is a prominent feature of various California industries."

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**Grader for Gooseberries.**—In answer to the enquiry published last month, Mr. R. A. Routley, General Secretary of the United Berry Growers' Association of Victoria, states that from enquiries made, graders are not used in the Wandin district. The grading of Gooseberries is done while picking. Machines are installed for grading, topping and tailing Gooseberries at the leading fruit canning establishments.

## Personal.

Mr. H. D. Howie, Chairman of the Board of Management of the A.D.F.A., has now recovered from his recent illness, and has returned to Renmark. He spent some weeks in a private hospital.

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Mr. R. E. Downie, Secretary of the Murray Wholesale Co-op. Society, is on a health and pleasure trip up North. If a shipping strike doesn't decree otherwise, he will go all the way to Brisbane and back to Adelaide by boat.

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Mr. H. G. Such, previously General Manager of the Griffith Producers' Co-operative Association Ltd., Griffith, N.S.W., has been selected by the New South Wales Central Citrus Association to go to New Zealand with the idea of stimulating the sale of Oranges in the Dominion. He sailed from Sydney on the 19th June.

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### Attractive Citrus Posters.

We acknowledge having received from the Victorian Railway Department two attractive posters relative to citrus fruits. On one of the posters is to be seen an inviting array of Mandarins, Oranges, Lemons, and Grape-fruit, a settler being shown in the act of filling a case with Oranges from a picking bag.

The other poster shows the figure of a statue denoting magnificent health and strength, and apparently in the act of reaching down for more Oranges—the source of vitality and perfect physical fitness.


# Special Notice to Fruitgrowers

In response to numerous requests from growers for information as to who are members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA, the following list is given. All are members of the above Association, and are registered firms:—

**H. M. Wade & Co.**, 471 Flinders Lane, Melb.
**T. Stott & Sons**, 11 Western Market, Melb.
**F. Booth & Sons**, 15 Western Market, Melb.
**H. L. E. Lovett & Co.**, 410 Flinders Lane, Melbourne.
**A. E. Pitt**, 12 Western Market, Melbourne.
**J. Davis**, 13 Western Market, Melbourne.
**G. Woolf & Sons**, 3 Western Market, Melb.
**W. S. Tong**, 4 Western Market, Melbourne.
**Silk Bros.**, 441 Flinders Lane, Melbourne.
**J. G. Mumford**, 449 Flinders Lane, Melb.
**J. W. Ross**, 6 Western Market, Melbourne.
**W. Sweeney**, 14 Western Market, Melb.
**J. H. Young & Co. Pty. Ltd.**, 7 Western Market, Melbourne.
**D. Smith Pty. Ltd.**, 480 Flinders Lane, Melb.
**Silbert, Sharp & Davies Pty. Ltd.**, 17 Western Market, Melbourne.
**A. Millis & Sons Pty. Ltd.**, 5 Western Market, Melbourne.
**W. A. Watkins**, 62 King Street, Melbourne.
**P. A. Patrikeos**, 31 William Street, Melb.

The whole of the QUEENSLAND FRUITS sold in Victoria, is handled by members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA, under appointment by the Committee of Direction of Fruit Marketing, Brisbane, Queensland.

GROWERS PROTECT YOURSELVES by consigning to members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA.

Correspondence is invited by the Association.

J. D. FRASER, Secretary, 325 Collins Street, Melbourne.

# The Fruit Trade

*Market Reports and News Items.*

**REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS,**

**Advertising in this Journal.**

**NEW SOUTH WALES.**

**Sydney.**
Chilton, F., City Fruit Markets.
Greenberg, S. & M., Fruit Markets.
Louey Pang & Samuel Wong Ltd., Thomas St., Haymarket.
Rogers, F. H. G., Fruit Exchange.
Rule & Beavis, Fruit Exchange.

**VICTORIA.**

**Melbourne.**
Coastal Farmers' Co-op. Society, Western Market.
Cave, F., & Co., Melbourne.
Colombie, H. G., 115 Hotham St., East Melbourne, see advt. xvi for list of representatives.
Davis, J., Western Market.
Lister, G., Western Market.
Millis, A., & Sons, Western Markets.
Mumford, J. G., 449 Flinders Lane.
Pang & Co. Ltd., H. L., Little Bourke Street.
Silbert, Sharp & Davies, Western Markets.
Stott & Son, T., Western Markets.
Tim Young & Co., Western Market.
Vear, F. W., 49 William Street.
Wade & Co., H. M., 471 Flinders Lane.
Woolf, G., Western Market.

**QUEENSLAND.**

**Brisbane.**
Barr, A. S., Fruit Exchange.
Collard & Mackay, Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Finlayson & Son, Fruit Exchange.
Geeves, H. V., Fruit Exchange.
Robsons Ltd., Fruit Exchange.
W. J. Whitten & Co., Fruit Exchange.

**TASMANIA.**

**Hobart.**
Jones & Co. Ltd., H., Fruit Exporters.
Peacock & Co., W. D., Fruit Exporters, and at London.
**Launceston.**
Bender & Co., 110 Elizabeth St.

**NEW ZEALAND.**

**Auckland.**
Radley & Co. Ltd., Fruit Auctioneers.
Turner & Growers Ltd., City Markets.
**Dunedin.**
Co-operative Fruitgrowers' of Otago Ltd.
Paterson, Thos., & Co., Vogel Street.

**ENGLAND.**

**London.**
Da Costa, Gerald, Floral Hall, Covent Garden.
Isaacs & Sons Ltd., M.
Jacobs, E., & Sons, Covent Garden
Joel, R., & Sons, 16, 17, 20 Russell St., Covent Garden.
Margetson & Co. Ltd., Covent Garden.
Monro, Geo., Ltd., Covent Garden.
Pask, Cornish & Smart, Covent Garden.
Poupart, T. J., Covent Garden.
Ridley, Houlding & Co., Covent Garden.
Springer, Barney, 12 Russell St., Covent Garden.
Swann & Co., 3 Salter's Hall Court.
**Hull.**
Shaw, B. & J.
White & Son Ltd.
**Liverpool.**
Adam, James, Son & Co., 1 Temple Court.
MacGeorge & Jardine.
**Southampton—**
**Manchester.**
North of England Fruit Brokers Ltd., represented by N. V. Wade, 8 Bridge St., Sydney.
**Newcastle-on-Tyne.**
B. & J. Shaw.
**Bristol.**
Bristol Fruit Brokers Ltd.

**SCOTLAND.**

**Glasgow.**
Russell, Turnbull & Co.

**IRELAND.**

**Belfast & Dublin.**
Connolly, Shaw & Co. Ltd.

**WALES.**

**Cardiff.**
Connolly, Shaw & Co.

**GERMANY.**

**Hamburg.**
Algemeene Vruchten Import Maatschappy.
Astheimer, P. H., & Son., Fruchthof.
Lutten, J. H., & Co., Hamburg.
Stier, Aug., Fruchhof, Reps. J. B. Mills & Co., 9 Queen St., Melbourne.

**HOLLAND.**

**Amsterdam.**
Algemeene Vruchten Import Maatschappy, De Ruyterkade, 39/40, also Rotterdam.

## British and Australasian Market Reports.

**London** (14/5/25/).

Messrs. F. W. Moore and Co., London, have sent, under date, May 14th, their usual interesting review of the fruit season, giving details of the fruit carrying ships then to hand from Australia. To April 25, 437,862 packages of Apples, and 47,327 of Pears had arrived, as compared with 407,775 packages of Apples and 15,451 of Pears, to the corresponding period in 1924. Supplies of North American Apples, particularly from U.S.A., were light—only one-tenth of the 1924 shipments, and the prices for Australasian fruit were correspondingly high. W.B.C. Pears from Tasmania, per "Esperance Bay," were sound, some very fine, some showing bad scald. The Victorian W.B.C. Pears for Hull ex "Surrey" were disappointing: temperatures were at fault: buyers expect the Pears green and to hold up for a week or ten days.

* * *

Mr. H. G. Colombie, representative for Messrs. M. Isaacs and Sons Ltd., London, reports:—Apples ex **"Mongolia," Oronsay," "Port Sidney," "Ceramic"**:—S.A. Cleo., 16/6 to 19/6; R.B., 14/6 to 16/6; **W.A.** Sturmer and Cleo., 15/- to 19/-; Jon. and B. Davis, 13/- to 17/6; Stones and Dunns, 14/6 to 16/-. **Vic.** Rymer, 16/6; K.D., 13/- to 13/6; R.B., Hoover, Dunns, Rokewood, Newtown, Sturmer, 14/- to 18/-; Cleo., 18/- to 18/6. **Tas.** Sturmer, 15/6 to 18/-; Cleo., 14/- to 18/-; Jon., 13/- to 17/6; Scarlet and Crowns, 14/- to 16/6; Crabs, 14/6 to 16/6; C.O.P., 16/6 to 21/-. **N.Z.** Jon., 11/6 to 17/6; Sturmer, L.P., Dunns, Adams, Statesman, 13/6 to 17/6. Pears ex **"Oronsay,"** bulk defective, others sound. Boxes, Nelis, 15/6 to 16/6; Jos., 19/6 to 21/-; Keiffer, 8/6 to 11/-; halves, Nelis, Jos., Packham, Cole, 6/9 to 11/-; Clair, 4/3 to 5/6.

Cable reviewing the week ending 27th June, 1925:—The cargoes ex **"Jervis Bay," "Balranald," "Orama," "Persic," "Port Adelaide," "Port Caroline," "Moldavia," "Borda,"** were auctioned this week.

**Vic.**: Jon. and Rymer, 12/- to 14/6; Sturmer, 13/6 to 16/6; R.B., 11/- to 15/6. Grapes, defective, sold at from 4/3 to 15/- (mostly 7/6 to 11/)-. **W.A.**: Dunns, 12/- to 17/6; Jon., 10/- to 13/6; Cleo., 11/6 to 18/- (mostly 16/- to 17/6). **Tas.**: Sturmer, 12/6 to 17/6; Cleo. 13/- to 18/-; C.E. and F.C., 12/- to 17/-; Jon., 10/- to 14/-; S.P.M., 12/- to 15/6; C.O.P., 15/- to 17/-; others, 11/- to 14/6.

* * *

The following cable reports have been received from Geo. Monro Ltd., Covent Garden, through their Australian representative, Capt. H. Dakin. Apples ex the **"Aeneas,"** Jon., 17/- to 19/-; Clarence, Davids, to 18/-; Five Crowns, 15/- to 18/-. **"Mongolia,"** Jon., London Pippin, 12/- to 15/-; Adams, Scarlets, Cleos. (spotty), 15/- to 16/-; Sturmers, 16/6 to 17/-; others, 14/- to 15/-; Pears, Grapes and Passion-fruit very wasty. **"Beltana": Victorian** (very ripe), Jons., London Pippin, 14/6 to 16/-. **West Australian,** Cleos., 20/- to 21/-; Dunn's, 18/-; Romes, 16/- to 16/6; Shepherds, 15/6 to 16/-. **Tasmanian,** Cleos., 16/- to 18/-; Sturmers, Scarletts, 16/- to 17/-; Adams, 14/6 to 16/-; Jons., 16/- to 16/6. **New South Wales,** Jons., 16/6 to 17/6; Adams, Five Crowns, 16/-. **"Demosthenes,"** Cleos., 17/6 to 18/9; Jons., 16/- to 18/-; Sturmers, 16/- to 17/-; Scarletts, 15/- to 16/-; London Pippin, 15/-.

* * *

J. O. Sims (7/5/25).—Victorian Apples ex **"Ferndale."**—Jon., 14/6, 16/-; Dunns, 15/-, 16/6; Cleos., 17/6, 18/6; L.P., 15/-, 15/6; K.D., 15/-, 16/-; Rome, 14/6, 15/6.

* * *

T. J. Poupart Ltd. (7/5/25).—3,000 cases of Tas. Apples ex **"Maloja"** realised 13/6 to 18/-.

* * *

**Strawberries Arriving.**

Letters from U.K. indicate an appreciable falling off in the demand for Australian and Tasmanian Apples, the public not being very willing to pay the high prices ruling, and a drop in values was forecasted.

Results cabled since then have recorded a decided drop in prices, which occurred with the **appearance of Strawberries in quantities,** but it is expected that values will improve in July.

**Liverpool.**

Messrs. MacGeorge and Jardine, Liverpool, report 26th May, 1925:—Ex the **"Ceramic,"** Cleos. realised 17/- to 21/-; N.Y.P., 15/- to 20/-; Jon., 15/- to 18/6; C.O.P., 15/- to 21/-; Ripstones, 14/- to 16/6; Alf., 15/- to 18/6; Pears, 14/- to 15/6.

* * *

Jas. Adam Son and Co. report 6/5/25:—Apples from Tas., Vic., S.A., W.P.M., 14/9, 16/3; Cleo., 14/6, 15/3; W.O.R., 12/9, 16/6.

Apples ex the "Ulysses" and "Runic": Victorian, Jon., 13/3 .to 19/-; Cleo., 16/3 to 18/9; King David, 15/9 to 16/3; Esopus, 12/6 to 13/-; Dunn, 16/- to 17/-; L.P. and F.C.P., to 16/-; F.C., M.F., to 16/6. Tasmanian: Cleo., 14/3 to 18/9; C.O.P., 11/- to 18/9; Pearmain, 11/6 to 16/9; R.P., 11/9 to 14/9; A.L.F., 12/6 to 16/-; Tas. Pip., 14/9 to 16/-; Jon., 12/9 to 15/6; Del., 14/- to 15/-; D.C., 12/- to 14/6. West Australian: Cleos., 15/6 to 18/9; Jon., 14/6 to 16/6. South Australian: Cleos., 16/9 to 18/6; Dunn's, 16/6 to 17/-. Tasmanian: Pears, ex the "Runic," B.B., 22/- cases; B.C., 5/- to 6/9 tray; B.D.C., 6/- to 6/9; B.D.M., 4/9 to 9/-; O.B., 4/6 to 4/9; C.O.M., 6/-; N.A.P., 17/9 case.

* * *

### Dried Fruit Prices.

A detailed report of the market in Great Britain for dried fruits is to hand from Messrs. J. C. Houghton & Co., Liverpool, dated May 1st. With Currants the expected big rise in prices did not eventuate, though prices hardened.

Trading concentrated chiefly on best parcels, shade dried Vostizza, 54/- to 56/-, also in ordinary to good 47/- to 50/-; Gulf and Panariti, 41/- to 46/-; Zante difficult of sale, with some smalls selling 40/- to 42/-. Cleaned fruit in request, 38/- to 40/-, with best grades up to 46/-. Transactions in old fruit are reported at 32/-, old Vostizza, 38/-.

**Raisins.**—Valencia, few remaining parcels, 35/- to 40/-.

Cape.—First arrivals disappointing, the fruit lacking in size and quality, being below last season's crop. Progress difficult at 42/- for F.A.Q.

**Sultanas.**—A welcome improvement in the demand; finest qualities 70/- to 77/6; good, 60/- to 62/-; lower grades, 48/6 to 50/- (slow sale).

**Australian.**—50 per cent. of last year's exports anticipated. It is greatly to be hoped that the quality may be superior, and so, to some extent, compensate for the diminished output.

### Hull.

John Seed and Sons, Hull, report 30/4/25, 50,000 boxes ex "Asphalion" and "Themistocles," demand good. Fruit from Vic., W.A., and S.A., Cleo., 16/-, 18/6; Jon., 13/-, 16/6; C.O.P., 15/-, 22/-. W.A. Pears: B.B., 22/-, 24/- per bus.; Vicars, 16/-, 16/6; Clairgeau, 18/-, 20/-; Jos., 19/-. S.A., Morceau, 16/- to 19/6.

* * *

Messrs. B. and J. Shaw, Hull, report, 22/6/25: Tas. Apples ex the "Port Caroline" realised N.Y.P., Cleos., 15/- to 19/-; Sturmers, 14/- to 17/-; others, 10/- to 15/-.

### Ireland.

Messrs. Connolly, Shaw and Co. Ltd., Belfast, report 29th May, 1925: —Tasmanian Apples ex "Ceramic" realised: Sturmers, Cleos., Pearmain, Jons., 17/6 to 19/-; Duke of Clarence were sold at from 15/- to 16/-.

### Germany.

The Algemeene Vruchten Import Maatschappy, Hamburg, report 25th June, 1925:—

The fruit ex the "Abbekerk" was somewhat green, and prices realised were:—

**Vic.:** Jons., 12/9 to 19/9; Romes, 6/6 to 24/-; London Pippins, 9/- to 16/-; Rokewood, 11/3 to 18/9; Stone Pippin, 13/9 to 29/-; Sturmers, 16/- to 20/3; Rymers, 10/6 to 23/3; various other varieties, 11/- to 29/6.

**West Australian** realised from 17/- to 30/-.

* * *

Ph. Astheimer and Son, Hamburg, 6/5/25:—20,000 boxes American Apples, 16/- to 20/- for extra fancy; fancy, 1/- to 1/6 less. 3,700 boxes Australian Apples very much in demand. Cleos. and Dunn's, 21/- to 25/-; other varieties less.

### New South Wales.

Sydney (22/6/25).

Mr. F. Chilton, City Fruit Markets, reports under date 22/6/25:—

Queensland Fruits.—Bananas, 12/- to 24/- per case; Pines, 12/- to 17/-; Tomatoes, 8/- to 11/- per half case. New South Wales Fruits.—Bananas, 14/- to 25/- per case; Lemons, 4/- to 6/- per bushel case; Oranges, common, 4/- to 7/-; Navel, 7/- to 10/-; Mandarins, Emperor, 7/- to 10/-; Thorny, 3/- to 6/- per half case; Apples, Rome Beauty, 9/- to 13/- per bushel case; F.C.P., 7/- to 11/-; Granny Smith, 11/- to 14/-; Pears, Packham, 11/- to 15/-; Passions, 5/- to 14/- per half case. Victorian Fruits.—Apples, Rome Beauty, 8/- to 13/- per bushel case; Jonathan, 9/- to 12/-; cooking varieties, 4/- to 9/-; Pears, B.B., 7/- to 13/-; W.C., 8/- to 14/-; Packham, 11/- to 14/-; Keiffer, 6/- to 9/-. Tasmanian Fruits. —Apples, R.B., 8/- to 12/- per bushel case; G.F., 7/- to 12/-; N.Y.P., 8/- to 12/-; Jonathan, 9/- to 13/-; F.C., 8/- to 12/-; S.P.M., 8/- to 13/-; Pears, W.C., 4/- to 7/- per half case; W.N., 4/- to 7/-; Nap., 4/- to 6/- per bushel case.

### Victoria.

Melbourne (30/6/25),

The following were the ruling wholesale quotations at the Western Market:—Apples—Good to choice eating, 4/6 to 7/6; good to choice cooking, 4/- to 6/-. Bananas—Queensland, 18/- to 26/- double. Lemons—Victorian, 6/- to 9/-. Mandarins—N.S.W., 15/- to 18/-. Oranges Murray Valley, 8/- to 10/-; N.S.W., 8/- to 10/-; Queensland, 10/- to 12/-; Navels, 8/- to 12/-. Passion-fruit—Victorian, 12/- to 20/-. Pears—Keiffers, 4/- to 6/-. Pineapples—Queens, 13/- to 14/- double.

* * *

### Citrus Report.

Melbourne (27/6/25).

The V.C.C.A. Market Representative, Mr. W. E. Branson, reports as follows for the week ending June 27th:—Trade for citrus fruits was somewhat brighter during the week. The quality of fruit coming to hand has improved considerably. Both common Oranges and Mandarins were in short supply. The market is oversupplied with Lemons.—Navels, 10/- to 14/-; Commons, 8/- to 10/-; Mandarins, local, 14/- to 18/-; Sydney, 12/- to 15/-; Lemons, 5/- to 8/-.

### West Australia.

Perth (25/6/25).

Apples, Jon., prime, 8/- to 11/9 dump cases; others, 5/- to 8/-; Cleos., prime, 7/6 to 10/-; others, 5/- to 5/6; Dunn's, prime, 7/- to 10/-; others, 5/- to 7/-; Yates, prime, 8/6 to 12/-; (choice, 13/6); others, 7/- to 8/-; Granny Smiths, prime, 7/6 to 10/6;


FRUIT SHIPMENTS —— TO NEW ZEALAND

**Dunedin (N.Z.) and South Seas Exhibition**

**REILLY'S CENTRAL PRODUCE MART LTD., DUNEDIN**
advise Growers of CHOICE FRUITS to ship to Dunedin.

**REILLY'S** anticipate an increased demand for all lines of choice Fruit arriving on this market between the months of September, 1925 and May, 1926.

**REILLY'S** offer Fruitgrowers their faithful service and will be pleased to advise Fruit Shippers the probable prices available and prospects of making suitable sales.

Cable or write to **Reilly's, Dunedin.** Codes used—BENTLEY'S, MARCONI'S, WESTERN UNION, A B C 5th & 6th Ed.

—— **REILLY'S GUARANTEE FAITHFUL SERVICE TO ALL CONSIGNORS.** ——

others, 8/6 (pitted, 6/6); Rome Beauties, prime, 7/6 to 10/6; others, 5/-; Dohertys, prime, 8/- to 11/9; others, 6/-; Pears, Josephines, 5/- to 9/6; various sorts, 2/- to 5/-; Navels, prime, 9/6 to 14/3; others, 5/- to 7/-; Oranges, 3/- to 5/-; Mandarins, prime, 8/6 to 12/9; others, 4/- to 7/-; Lemons, prime, 5/6 to 9/-; others, 3/6.

### Tasmania.

**Hobart.**

S.P.M., best lots, 10/8 to 11/1; fair, 9/6 to 10/-; Jon., No. 1, good, to 10/5; medium do., to 8/6; N.Y.P., No. 1, fair, 8/6 to 9/1; medium, good colour, 7/- to 8/-; S.T.P., No. 1, good, 8/- to 8/11; fair, 7/- to 7/9; medium, 5/6 to 6/6; A.P.M., small, 4/- to 5/1; R.B., No. 1, fair, 9/-; R.P.M., fair, to 6/10.

### South Australia.

**Adelaide** (27/6/25).

Apples, eating, 10/- to 12/- case; cooking, 8/- to 10/-; Lemons, 6/-; Oranges, common, 7/-; Mandarins, 14/- to 16/-; Navel, 10/- to 11/-; Poorman, 6/-; Pears, eating, 12/- to 14/-; cooking, 8/- to 10/-; Persimmons, 14/-.

### Queensland.

**Brisbane** (27/6/25).

Lemons, 2/- to 3/- ½ bushel case; Pineapples, rough leaf, 5/- to 6/- case; smooth leaf, 5/- to 7/-; Oranges, special, 7/6; common, 4/- to 7/-; Navels, 9/- to 14/-; Mandarins, 7/- to 10/-.

### New Zealand.

**Dunedin** (18/6/25).

Reilly's Central Produce Mart report under date, 18/6/25:—Heavy supplies of plain and Navel Oranges, Mandarins, Pines, Passions, Poormans, Lemons, etc., arrived during the week. Prices are distinctly lower. Grapes, Gros Colmar, 2/6; Tomatoes, locals to 1/8; Christchurch, 1/2; Lemons, New South Wales, 22/6; S. Australian, 24/-; Oranges, N.S.W., 18/6; Navels, 20/-, 22/6; Island, 20/-; Repacks, 25/-; Poormans, 12/6, 14/-; Mandarins, N.S.W., 22/6; Bananas, ripe, 35/-; Passions, Australian, 20/-; N.Z., 10/-, 15/-; Pineapples, 22/-, 24/- case.

### Shipment of Grapes.

Nearly 10,000 cases of Grapes (Ohanez variety) were shipped by R.M.S. "Orama" on May 4th, the consignment being inspected at the Government Cool Store, Melbourne, by Mr. J. M. Ward (Superintendent of Horticulture), Mr. Meeking (Senr. Fruit Inspector), Mr. Thompson (Central Customs), accompanied by Mr. Orme, of the Government Cool Stores, Victoria Duck.

Each case contained about 25 lbs. of Grapes, with 4 lbs. to 5 lbs. of cork dust. The fruit was firm and looked very well, and the opinion was expressed that it would carry safely. The cases are constructed on the three-quarter bushel size. They are made of local hardwood, planed, and present a pleasing appearance. The sides are in two pieces, and the ends and top are in one piece. A paper label was affixed. Some of the labels were loose, caused apparently through not being gummed properly.

The fruit came principally from Merbein and Red Cliffs. Swan Hill also sent quantities forward. It is being sent to Messrs. Swann and Co., London, through Messrs. H. M. Wade and Co., of Flinders-lane, Melbourne.

A satisfactory trade in the export of Ohanez Grapes has been built up in Western Australia: there is no reason why the trade should not be similarly developed in Victoria.


*Telephone: Central 6598*

Always Reliable

. . FRUIT . .

*received and forwarded to all parts of the*

**Commonwealth and Overseas**

by

**F. CAVE & CO.**

*Wholesale Fruit Merchants and General Agents*

Western Markets, Melbourne

*Postal Address:* 42 WILLIAM STREET, MELBOURNE

*Exporters of Choice Australian Fruits*

Cable and Telegraphic Address:—"CAVECOFRUITS," MELBOURNE

*Suppliers of all Orchardist's Requisites*
*New and Secondhand Cases always on hand*


## Classified Advertisements.

Wanted and For Sale.

Advertisements under this heading, which cannot exceed one inch will be classified as far as possible.

**Prices are as follows:—**

Casual Advertisements, one or three months—9d. per line of six words. Nine lines to the inch.

Contract Advertisements, six or twelve month, 6d. per line of 6 words. 9 lines to the inch.

Send cash with order.


**FOR SALE.**

EXTON Late Prolific Raspberry Canes, also Filbasket and Thornless. Particulars,
CHARLES EXTON & SONS,
"Wentwood,"
Kinglake, Vic.

PROPERTY ORCHARD, 19 acres, 11 acres bearing, 8 acres 4-year-old trees, 11 under cultivation, 34 grass, good dwelling, superior Apple house and hay shed; all other necessary outbuildings. **Terms**—1-3rd cash, balance over 10 years at 7 per cent. Inspection invited.
J. Chelhew,
North Harcourt (Vic.).

EXCEPTIONAL.—12¾ acres deep alluvial soil, bank St. George's River, N.S.W., 6 minutes' walk suburban station, 5 acres Black Muscat Grapes, part bearing; 2½ acres best Peaches; new dwelling and outhouses, going concern. £2,250. £1,000 bank mortgage if required.—"VINEYARDIST," "Fruit World."

**LEMONS.**

**We are the Largest Buyers in Australia.**
PROMPT SETTLEMENTS.
**C. M. BROOKE & SONS**
73 Whiteman St., South Melbourne, Vic.

MARCUS AURELIUS ANTONIUS has said:—"Pass through this little space of time comformably to Nature, and end thy journey in content." He is a counsel which mankind may well follow, but the fitness of old age and its blessings are only for those who in youth and middle age have kept themselves healthy. Among the worst pests that attack humanity are ills of the Liver and Digestive Organs. A.M.S. Digestive and Liver Tonic will cure you of these troubles. It is the most effective remedy dispensed. Try it, and you will have health and happiness and bless nature who produced you. Sold by all chemists and country storekeepers, 3/-; by post, 3/6. Manufactured by T. A. Dickson, Chemist, Geelong, Vic.

# PEDIGREE FRUIT TREES

**CITRUS**

APPLES, APRICOTS, PRUNES, PEARS, PLUMS, PEACHES, etc.

**QUALITY PRIME**

Correspondence Invited
Orders Being Booked
Send for Our Catalogue
The Most Up-to-date in Australia

**F. Ferguson & Son,**
**Australian Nurseries,**
**Hurstville, N.S.W.**

## New Zealand is an Important Market for Australian Fruit.

## Ship Your Oranges, Lemons, Grapes to New Zealand

All consignments for this market will have careful attention and realize highest prices if sent to

**The Co-operative Fruitgrowers of Otago Limited, Dunedin**

Personal supervision of every consignment.
Cheques posted promptly.
Drop us a Line or Cable "Peachbloom," Dunedin.

SHIP TO
AUCKLAND, N.Z.

Consign to the Up-to-date and Established Firm of

**TURNERS & GROWERS**
— LTD. —

**City Markets, Auckland New Zealand.**

Salesrooms comprise—
**55,000 ft. of FLOOR SPACE,** including
**FRUIT COOL STORAGE ON PREMISES.**

**Staff of nearly 100 Employees Competent Salesmen only employed.**

HIGHEST PRICES
PROMPT RETURNS.

CABLE ADDRESS: "Cantab"
P.O. Box 439.

BANKERS: Bank of New South Wales, AUCKLAND.

## EXPORTERS TO NEW ZEALAND!

There is not a better market for you than

# DUNEDIN

Ship under Brand

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To—

**THOS. PATERSON & CO.**
Established 1879.
**Fruit and Produce Brokers and Auctioneers**

**VOGEL STREET - - DUNEDIN**

We Solicit Consignments of
**ORANGES LEMONS PASSIONS GRAPES**

Cable us "PATRICROFT," Dunedin,
We will give you Market Values.

Address all correspondence to - P.O. Box 132, Dunedin

**The Auckland (N.Z.) Market offers an Excellent Market to — all Growers of —**

**MANDARINS**
**PASSIONS**
**ORANGES PINES**
**ETC.**

*— By Consigning to —*

## Radley & Co. Ltd.

*...Fruit and Produce Merchants...*
**AUCKLAND, N.Z.**

Growers will obtain Highest Market Prices.
Our large salesrooms cover 22,600 feet of floor space, and are right in the centre of the Auckland City Markets.
Growers have no need to prepay sea freight by shipping through Stephen McCormick, forwarding agent, Sydney.
Inquiries regarding N.Z. market will be gladly answered.
Address correspondence: P.O. Box 665, Auckland.
CABLES: "RADLEY, AUCKLAND."
BANKERS: Bank of New South Wales.




## Poultry Notes.

(By A.E.)

From now right up to the end of September, hatching the new season's workers is the order of the day.

Maybe broody hens are hard to get just about this time of the year, but as the hens won't go broody to order there is always the perfect substitute in the incubator.

Opinions seem to be divided on the best type of incubator to use, just as there are differences of opinion as to the best chicks to raise.

Good advice at any rate, is "Buy the best," for a good incubator is a sure chick getter.

Now is the time to decide to have a good supply of early spring chicks which are favored as being the best egg-producers later on, and that's the main thing to consider.

Having decided on the brand of incubator, don't get one larger than can be used economically.

There is nothing very difficult about running an incubator, in fact the work and management is simplicity itself.

All the same there are a number of things that must be done regularly, and unfailingly if success is to be attained.

Don't forget that incubation is simply a scientific imitation of one of the laws of nature working in the broody hen; she has set the pace, and it must be followed with clockwork-like regularity.

There are three things particularly that cannot be overlooked, a matter of twenty minutes work and twice daily, night and morning, just as if the broody hen was on the job:—

1. **The eggs must be turned.**
2. **The oil replenished.**
3. **The wick trimmed.**

The first turning should not be within 24 hours after placing in the incubator.

To ensure complete turns it is a good idea to mark the date on one side, and x or some other mark on the opposite side.

The date plus twenty one will give the date when hatching is to be expected.

In turning the eggs they must be rolled completely over and that AFTER cooling. This is a vital point and exactly imitates the hen's method—she leaves the nest to feed, and on returning rolls the eggs about.

The object of this is to prevent the life germ from adhering to the membrane next to the shell.

The constant turning keeps the germ about the centre of the egg until the chick begins to form, then the operation becomes unnecessary, so that at the end of the hatch regularity is not so vital and should be discontinued during the last three days.

While neither of the operations, 2 and 3, require any great skill they are still most important and attention to them must never flag.

Regulate the heat carefully and test with thermometer frequently. The egg chamber should be kept at 102 degrees, and although the heat of the forming chickens will send this up about a degree in the third week, the heat should not on any account or occasion be allowed to exceed 104 degrees.

To revert to the cooling of the eggs before turning—during the first week not more than five minutes is quite sufficient. During the second week this period may be lengthened to ten, and in the third to not more than fifteen minutes.

But a most important point to remember is this—the heat must return to 102 deg. to 103 deg. within an hour on each occasion. Heating the eggs up in twenty minutes one day and in two hours the next is not giving the embryo chick a chance.

If the heat is back to the correct temperature in just an hour each time the eggs are turned the result will be splendid hatches.

A week after commencing is the correct time to examine the eggs for fertility etc.

Holding to the light, the eggs with the dark spot are invariably fertile, whilst the clear ones are discarded as unfertile or addled or other defect.

It is well to make sure that only the fresh, smooth-shelled, unfractured eggs are inserted. Cracks however slight, can be detected by sound if two eggs are tapped together.

Should an egg, belonging to a valuable setting for which possibly some pounds have been paid, be found to be fractured, do not reject it as unsuitable. If the fracture is not too bad it should be covered with a small strip of court plaster. Handled carefully, eggs that have been given "first aid" usually hatch out alright.

### POULTRY AS A SIDELINE.

Before the Lucindale branch of the South Australian Agricultural Bureau, Mr. P. W. Dow spoke of the egg-laying capacity of the White Leghorn, and the table virtues of the Game breeds. In his opinion, however, the best fowl for the farm was one which combined the good qualities of each. So far as a dual purpose fowl for the farm was concerned, he favored the Rhode Island Red. Mr. Dow also referred to the selection of the stock and the need for careful attention to cleanliness, and the provision of greenfeed, shell grit, gravel, and meat or meal. Early spring hatching was favored for best egg-laying results. Newly hatched chicks should be kept without food for the first 48 hours. The farmer should endeavour to avoid flock breeding during the glut of the egg season. Referring to ducks, Mr. Dow preferred Indian Runners for egg production in that district. Ducks lost weight very considerably in transit over long distances, and he did not recommend keeping them for marketing along the lines of meat production.

### FEEDING IMPORTANT.

**Autumn and Winter Eggs.**

"If your birds are of good laying strain they must be properly housed if you expect eggs in autumn and winter," said the Poultry Expert (Mr. D. F. Laurie), in advising a correspondent in the S.A. Journal of Agriculture. "Pullets must be bred at the proper season, hatched out not later than end of September. Feeding must be on wet mash in the mornings, green food chaffed, or light feed of grain mid-day, and grain again half an hour before sunset. Plenty of fresh water, shell grit, and quartz grit should be available. Mash for 100 fowls can be made of:—Bran, 3½lbs.; pollard, 7lbs.; meat meal, 1lb.; salt, 1oz.; chaffed green food, half kerosine-tin. Make soup of the meat meal, add salt, scald the bran, and then add green food. Mix well, then add the pollard, and mix well to a crumbly mash. Give as much as the birds will clean up in 25 minutes. Grain—wheat, or wheat half, oats half—6lbs. per 100 birds."

## Pig Rearing.

**Breeding and Feeding.**

In the course of a paper dealing with this subject, Mr. A. J. Handtke, of Charra, South Australia, stated that he was of the opinion that the Tamworth sow crossed with a Berkshire boar would

(*Continued on Page xvi.*)

# Bigger Winter Egg Returns



This is now definitely possible. The old years' long and universal regret among Poultry Raisers, "that fowls cease laying in Winter"—the time when a regular and plentiful supply of eggs means twice as much profit as that shown in Summer—is happily a thing of the past. If your fowls are not laying now it is almost a certainty that it is due to the strain of summer laying and consequent loss of nervous force and reserve strength. Build up this reserve strength, enrich the blood, repair the nervous waste by the use of Karswood Poultry Spice (which contains ground insects). It is no use putting it off. Any tonic, to act naturally, must act slowly. Therefore, to keep your birds laying and to enable them to continue through the winter months, it is imperative to start now. Karswood poultry Spice, the natural tonic, is rich in assimilable phosphorus and other tonic properties, which together form the natural means for keeping the birds fit and for inducing egg laying. The cost, too, is negligible, being one half-penny per day for twelve birds. Read what Mr. Charles G. Evenden says concerning "Karswood":—

### "WILL NEVER BE WITHOUT IT."

Dear Sirs,—

I have been using "KARSWOOD POULTRY SPICE" for one month, and I now desire to state that I will never be without it. Its effect on my twelve Black Orpington Pullets is truly marvellous. Every day, from a week after I had started them with "Karswood," I got from the twelve pullets either ten or eleven eggs. Yesterday not one missed, we got twelve eggs. Before I started with "Karswood" I had a flock of fifty Black Orpington Pullets. I sold thirty-eight of these, which left me twelve. I may state the twelve birds I have were picked out at random, as none of us are poultry experts. The owners of the thirty-eight birds purchased from me have not used "Karswood." They have been getting an average of six eggs per day from them, putting this down to the severe weather we have had down in Gippsland lately. This only seems to emphasise the wonderful effect of "Karswood" on my twelve pullets that have laid so remarkably well in this severe weather. The manufacturers of "Karswood" Poultry Spice, I feel sure, are certainly entitled to claim that "Karswood" puts Profit in Poultry. I do not consider I am wasting my time in writing you this, as I have had long experience with Poultry, but never—how much I tried—have I had results like this, therefore, my pleasure in writing.

### MAKE THIS TEST.

Go to your local Grocer, Storekeeper, or Produce Dealer. Get a 1/- packet of "Karswood" Poultry Spice, then give it to half-a-dozen of your birds in accordance with the directions on the packet. Do not expect immediate results, "Karswood" works naturally, not suddenly. It takes at least a fortnight or three weeks to produce results, but they are good and sure.

### NOTE THE ECONOMY.

1/- packet supplies 20 hens for 16 days.
2/- packet supplies 20 hens for 32 days.
13/- (7lb. tin) supplies 140 hens for 32 days.

### SUPPLIES.

"Karswood" Poultry Spice is obtainable from all Stores and Poultry Food Suppliers at the following standardised prices:—

| | |
|---|---|
| ½lb. packet . . . . . | Price, 1/- |
| 1lb. packet . . . . . | Price, 2/- |
| 7lb. tin . . . . . | Price, 13/- |
| 14lb. tin . . . . . | Price, 25/- |
| 28lb. tin . . . . . | Price, 48/- |

*If your local dealer cannot supply you, write direct to Messrs. Henry Berry Pty. Limited, 380 Collins St., Melbourne, adding postage---- 6d. on half-pound packets and 9d. on one-pound packets---to the above prices.*

### MANCHESTER.

The Port of Manchester offers special advantages owing to its unique geographical position, and the enormous population which is within easy rail or road motor transport service of its docks. Its facilities are of the most up-to-date type, and a United States port engineer, who recently made a systematic inspection of the ports of the United Kingdom and Continent, states—"In both construction and operation Manchester stands out as the most efficient port in Europe."

Situated about 40 miles from the coast—in the centre of the area which comprises the busy commercial and manufacturing districts of Lancashire, Yorkshire and the Midland Counties of England—the construction of the Manchester Ship Canal and docks has made it possible to serve a population of 10 millions resident within a radius of 50 miles of the city, more economically than by any other route.

Very large quantities of fruit, meat, dairy produce, etc., are landed in London or Liverpool, and conveyed by rail or road to Manchester and the surrounding area; the cost of forwarding such produce is approximately £3 per ton from London, and £1 per ton from Liverpool, and although this represents a serious item, the damage and deterioration which frequently occurs owing to multiple handling and unsatisfactory rail or road transport services involves an even greater loss.

From 2 to 2½ million packages of imported fruit are sold under the hammer each year in the municipal fruit auction rooms at Manchester—in addition to enormous quantities distributed to the retail trade through the wholesale fruit market; the latter is second only in importance, and the magnitude of business transacted to Covent Garden, London.

Most of the imported fruit distributed in the Manchester area is of Canadian, American or Mediterranean origin, and there is enormous scope for the development of a profitable trade in Australian Apples, Pears and citrus fruit, if direct shipment is arranged to this great commercial centre.

Figures quoted in the Ship Canal Company's advertisements prove how great is the business which passes through the Manchester banks—the surest indication of a city's commercial and financial activity.

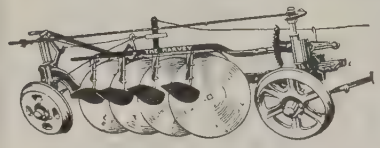
Australian producers and exporters would be well advised to ascertain what proportion of their produce is ultimately consumed in the densely populated industrial areas situated in the North of England; if large quantities are so distributed, direct shipment to the nearest distributing ports should be insisted upon, and British brokers or agents instructed accordingly.


# The New "Harvey" Tractor Ploughs & Cultivators

ELIMINATE MISDIRECTED ENERGY
WASTE TIME and NEEDLESS STOPS

**"Harvey" Power Lift Tractor Drawn Implements are always ready & simple to operate**

**Made in sizes from 2 to 7 Furrows.**

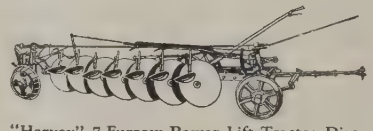


The Ideal Implement for Cane Field "Harvey" 4-Furrow Power Lift Tractor Plow (Model H.D 4.)

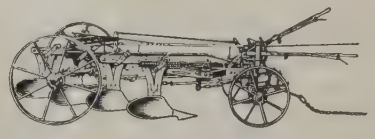


"Harvey" 7-Furrow Shortboard Tractor Plow, fitted with D Steel Shares and Circular Coulters. (Model D2).

"HARVEY"
STUMP-JUMP
POWER-LIFT
TRACTOR
- PLOWS -
are
Made in Sizes of 3-7 Furrows
& Fitted with 'D' Steel Shares



"Harvey" 7-Furrow Power Lift Tractor Disc Plow (Model H.D4.)



"Harvey" 4-Furrow Stump-Jump Short-board Tractor Plow. (Model S.J21).

There is a "Harvey" Implement for every purpose on the
ORCHARD, VINEYARD OR SMALL FARM

Spare Parts Obtainable at Shortest Notice

Send for Catalog and Descriptive Matter of our Complete Range of Implements.

**D. HARVEY,** Implement Manufacturer **BOX HILL,** MELBOURNE

*Show Room:* F. R. Mellor, 440 Elizabeth St., Melbourne

# "CARLTON" Lead is Codlin's doom
# Cleans the Orchard like a broom!

**EVERY POUND OF "CARLTON" ARSENATE OF LEAD will go further and kill more grubs than a pound of any other paste, simply because the "CARLTON" is stronger and better-made than all others**

1.—The "CARLTON," as you buy it, is guaranteed to contain 20% Arsenic Pentoxide (the poison). No other gives a guarantee anywhere near this.

2.—You obtain 8 or 10 lbs. more solids in every 100 lbs. of the "CARLTON." It contains only about 37% of moisture.

3.—It has exceptional suspension qualities, enabling the poison to remain evenly distributed right through the spray.

4.—Owing to its extreme fineness it spreads and sticks without the use of a spreader.

## Order "CARLTON" and make sure of a CLEAN Crop

## F. R. MELLOR, 440 Elizabeth St., Melbourne

*ESTABLISHED 1866.* *TELEPHONE 2979*

## Watters' Seeds

For the CHOICEST VEGETABLES and most BEAUTIFUL FLOWERS sow our Seeds

We are Headquarters for—

## Hunter River Lucerne

**Cleaned by our Special Machinery, and free from all weeds. SPECIAL QUOTATIONS for Cwt. or Ton lots on application.**

We have large stocks of the following in best re-cleaned Seed: **Broadleaf Dwarf Essex Rape, Grasses, Clovers,** and all varieties of **Green Fodder and Root Crop Seeds**

Write at once for our Special Quotations.

**Spraying Oils, Fungicides, Raffia**

Illustrated Catalogue and Calendar, post free.

## WATTERS & SONS

**251 & 253 Swanston St., Melbourne**

## CALCIUM CYANIDE
## Keeps Citrus Trees Clean
## —— for Three Years ——

Think of the saving of time, trouble and material.

**CALCIUM CYANIDE** has proved the most successful method yet evolved of fumigating Citrus Trees. It is now used on the Irrigation Areas and by the Victorian Government.

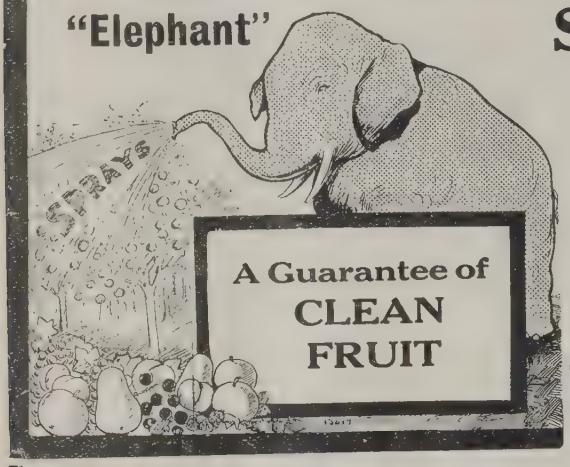
It calls for no pots, sulphuric acid nor water solution. It will not injure the tents, into which it is blown in a cloud in a few seconds.

For this a specially constructed rotary fan blower is used.

Get full particulars of this best of all methods of citrus fumigation.

**STATE DISTRIBUTORS:**

New South Wales:—**Buzacott & Co. Ltd.,** 7-11 Market Street, Sydney.
Victoria:—**A. Victor Leggo & Co.,** Melbourne.
South Australia:—**S.A. Farmers' Co-op. Union Ltd.,** Adelaide.
Queensland:—**Buzacott's (Qld.) Ltd.,** Adelaide St., Brisbane.
West Australia:—**Harris, Scarfe & Sandovers Ltd.,** Perth.




# STILL ON TOP!!!

## ORCHARDISTS

should use only the best Fruit Sprays, therefore ask for and see that you get

## "Elephant" Brand

# PREPARED RED OIL

Prevents Growth of, and also destroys Scales, Woolly Aphis, Red Spider, &c.
Now is the time to order "ELEPHANT" BRAND RED OIL

Spray early to bring out blossoms early on late varieties of Apples and thus avoid ravages from thrips.

"Elephant" Brand Prepared Red Oil contains only the best lubricating oils and forms a nice emulsion. Also stays on the trees for a considerable time.

# LIME SULPHUR SOLUTION
# ARSENATE OF LEAD (PASTE & POWDER)

. . . Also . . .

**Spreader, Atomic Sulphur, Bordeaux, Sulphur, Weed Killer, Macclesfield, Bluestone, Etc. Etc.**

Write for a copy of the marvellous Government tests.

Manf. by **JAQUES PTY. LTD.,**
Manufacturing Chemists, MADDEN GROVE, BURNLEY, MELB., Vic.
Telephone: J 2008. Agents: Seedsmen, &c.

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| COASTAL FARMERS' SOCIETY LTD., Valentine & Quay Streets, SYDNEY, and Municipal Markets, SYDNEY. | RELIABLE AGENT WANTED | SILBERT, SHARP & BISHOP LTD., Rundle Street, ADELAIDE. | WESTRALIAN FARMERS' LTD., 569 Wellington St., PERTH. | C. DAVIS LTD., Elizabeth St., Hobart. COASTAL FARMERS', Launceston. COCKER, BELL Pty. Devonport. | PIZZEY, McINNES LTD., Box 1114, G.P.O., AUCKLAND. |

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"FRUIT WORLD OF AUSTRALASIA."

Representing the Deciduous, Citrus and Dried Fruits Industry of Australasia.

Published the First of each Month.

**Editorial and Management Notices.**

**Articles and Photographs.**—The Editor will always be very pleased to receive articles and photographs for publication. Articles on spraying, pruning, drainage, marketing, and other cultural matters, and reports of meetings, are welcomed. Please write on one side of paper only; include name and address (not necessarily for publication). Press matter sent in an open envelope, marked "Printer's MSS.," postage rate: 2 ozs., 1½d. Photographs, if sent in an open-ended package, marked "Photos. only," will travel at 2 ozs., 1½d. A short description of the photos. should be written on the back.

**We do not hold ourselves responsible for the views expressed by our correspondents.**

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**Advertisements.**

"The Fruit World of Australasia" is an advertising medium of proved value. Advertising rates may be had on application to our Head Office, or to agents in the various States, as set out below.

Changes of copy for advertisements must be in our hands on or before the 17th of the month prior to publication.

Readers are asked to make their purchases from our advertisers, who cover all lines of interest to orchardists, at the same time mentioning this journal. By so doing, the grower, the advertiser, and this paper will benefit.

Every care is taken to publish advertisements from reliable houses only, and to see that advertisements of an undesirable nature are not published. The management reserve the right to refuse to publish any announcements that they may regard as undesirable, either from the point of view of the goods offered or in the wording of the advertisement, notwithstanding the fact that a contract may have been entered into for the use of a certain space.

**"The Fruit World" Offices (where copies and full particulars are obtainable) are as follows:—**

**Victoria** (Head Office): 9 Queen Street, Melbourne. **New South Wales:** Carruthers, Farrum & Co., 77 King Street, Sydney. **South Australia:** W. F. McConnell, Grenfell Buildings, Grenfell Street, Adelaide. **Tasmania:** Saunders & Co., Murray Street, Hobart. **Western Australia:** D. L. Hetherington, Colonial Mutual Buildings, St. George's Terrace, Perth. **Queensland:** Gordon & Gotch Ltd., Queen Street, Brisbane. **New Zealand:** Gordon & Gotch Ltd., Wellington, Dunedin and Auckland. **Great Britain:** Harvey H. Mason, 1 Mitre Court, Fleet Street, London, E.C., England.

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**Tasmanian Director:** HON. L. M. SHOOBRIDGE, M.L.C.

## NEWS IN BRIEF.

The "cold dip" process for dried vine fruits is reported to be more satisfactory than the previous hot dip process. Details of the cold dip process are given in this issue.

* * *

A report from Tasmania states that Dr. Cameron, Director of Agriculture in Victoria, is being asked to visit the Island State to report on the better organisation of the Department of Agriculture there.

* * *

The subject of spring irrigation of citrus orchards forms the subject of an interesting article in this issue.

## PERSONAL.

Mr. F. de Castella, Victorian Government Viticulturist, who has been invalided for some weeks, is back again at his duties.

* * *

Mr. Jos. Jordan, of Burwood, has been re-elected President of the Metropolitan and Districts Fruitgrowers' Association. Mr. Jordan is a cheery optimist, with a smile that does one good to see.

* * *

Mr. J. B. Mills, of J. B. Mills & Co., exporters, 9 Queen-street, Melbourne, was recently operated on for appendicitis. After a period of convalesence at Harcourt, Mr. Mills has recovered his health.

* * *

Having relinquished his position with the Government of New South Wales, Mr. Geo. H. Tolley has taken an office in Collins House, Melbourne, for the purpose of practising his profession as an irrigation specialist, licensed surveyor and valuer.

* * *

After 30 years' service as secretary and business manager with the Toomuc Valley Orchards, Pakenham, Mr. G. Aldwinckle has now commenced business for himself in that district as a fruit agent, etc. Mr. Aldwinckle advises that he has been successful in securing a wide connection.

* * *

Among the proposals of the Victorian Public Service Commissioner, who has made a report on the reorganisation of the Department of Agriculture of that State, is one that recommends the permanent appointment of Mr. J. M. Ward, as Horticultural Superintendent. Mr. Ward was appointed temporarily to the position some eighteen months ago, and this recommendation will make his appointment a permanent one. Mr. Ward is very popular with the officers of all classes in his division, and his permanent appointment will give satisfaction to all. We heartily congratulate Mr. Ward on his prospects, and on the good work he has already done.

## OBITUARY.

On July 11th Mrs Hannah Mary Elvery, wife of Arthur Elvery of Lockwood, Belgrave, (Vic.), passed away suddenly.

In the death of Mrs. Elvery, Victoria loses a woman of sterling worth. The deceased led a very strenuous life and was active in all matters affecting the welfare of her district and the State generally. Mrs. Elvery will be best remembered by fruitgrowers because it was largely owing to her energy and organising ability that the Victorian Orchardists' Co-operative Association was started some twelve years ago. When the movement was fairly launched she took a much less active part, in fact she was considerably disappointed at the turn of affairs in the initial stages of the Company's existence. The fact that the V.O.C. had a chequered career and finally wound up is no reflection on the work of Mrs. Elvery, for in all respects she proved herself a capable organiser and loyal and self-sacrificing worker. She leaves an honoured memory.

## AMERICAN PRUNE CROP SHORTAGE.

According to American reports the Oregon Prune crop is expected to be much smaller than that of last year.

Officials of the Pacific-Co-operative Prune Exchange say the 1925 crop will approximate 30 per cent. of last year.

**Royal Show, Melbourne.** — As entries close on August 15th, growers and associations are advised to lodge entries in time.

## HELPFUL PUBLICITY.

**Assistance by Railway Department.**

The Victorian Railway Department is to be complimented on the fine way it is conducting propaganda to assist the primary industries of the State. Just now emphasis is being laid on the benefits of eating more citrus fruit.

**Shipping Strike.**—Evil results to the fruit industry have followed the disastrous strike of the Seamen's Union. Tasmania again suffers because she cannot ship her fruit to the mainland. W.A.—another outlying State, feels the sugar shortage. A South Australian correspondent, on the latter subject, points out the restriction of the Governments in dealing through one agent (the Colonial Sugar Refining Co.), and urging that no foodstuffs should be under the monopoly or caprice of one firm, company, or corporation.

# The Root Borer.

THE Root Borer is one of the most troublesome orchard pests. A correct life history of this destructive insect has not yet been obtained.

Speaking at the Victorian Fruitgrowers' Conference at Echuca, Mr. H. W. Davey, of the Department of Agriculture, stated the life of an insect might be from six to eight years. He then went on to describe the Root Borer parasite—a tiny wasp like a mosquito, which laid its eggs in the beetle. Such beetles as were parasitised, would certainly be killed in time, but up to the present the parasite had not been able to seriously cope with the spread of the Root Borer pest.

If it were possible to secure sufficient parasites to lay their eggs in the Root Borers, some appreciable advance might be made in the work of combating this serious pest. It is suggested that instead of killing the parasitised Root Borers they should be preserved to allow the parasites to come to maturity in the beetle, and to do this, the only way would be to cage up as many beetles as possible and feed them for a time, when the parasites would eventually emerge and form themselves in clusters of cocoons in the cage, from which they subsequently turn into the tiny wasps ready to attack the borer.

Another suggestion is that these parasites should be bred in large numbers and supplied to orchardists in the Root Borer infected districts. Growers hope that the Department of Agriculture will undertake this very important work.

Mr. Fred Thiele, a well known and much appreciated fruitgrower, of Doncaster, Vic., has successfully coped with the Root Borer pest, and, with his usual courtesy, now places his experience before growers through the "Fruit World."

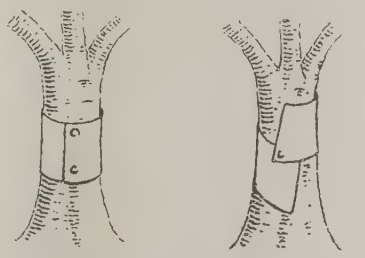
Mr. Thiele states he has used all kinds of Root Borer traps, but has found them all more or less unsatisfactory. Banding of the trees with sticky substances did not prove effective, nor applying birdlime, as very quickly these became coated with dust, over which the insects could crawl.

### Zinc Bands.

A most successful method is the one illustrated on this page—the placing of a zinc band around the trunk of the tree. The zinc used is about 2½ inches wide, and is so placed that one edge overlaps the other. It would be a mistake to so fasten the zinc band with the edges level like a wrist band. The lower corner must be taken up and fastened to the top edge as per illustration herewith. The reason for this is that the beetle, by using its claws, would find opportunity to crawl over the joint if it were level. The method illustrated prevents this.

Zinc is recommended, as, after exposure to the weather, a light dust corrosion is formed which prevents the beetle from using its suction pads in crawling. Inspection of the zinc band is necessary from time to time to see that no pieces of bark, twigs or even spider web passes across the zinc band, as the beetle would use such for climbing purposes. With the zinc bands properly in position, the beetle will crawl all around the lower edges, and finding no method of getting across, drops on the ground. Again and again they try to ascend, and then finally the baffled beetles can be destroyed or they become a prey to insectivorous birds.

The zinc bands need attention at least every year, and sometimes during the year, as they must not be allowed to become too tight; otherwise, the sap flow will be stopped. The usual method is to place the zinc bands on the tree about 18 inches from the ground level. With this method as with every other system of fighting pests, thoroughness is the keynote of success. As new zinc bands have no corrosion, it has been found of advantage to rub them over



Banding Trees with Zinc.

The wrong way. | The right way

with blacklead, which creates a fine dust, thus preventing the beetles from getting across by their suction pads.

In addition, it is necessary that the orchards be kept clean in the spring, states Mr. Thiele, removing all weeds, as the insects will lay their eggs on the weeds or on the leaves of suckers of trees. Clean cultivation is therefore absolutely essential.

Spraying with arsenate of lead has been recommended, as the beetle is a leaf-cating insect. There are difficulties, however, in applying the arsenate of lead at the time when it might be most effective. For instance, the insects come up from the ground when the rain softens the soil, and it will be difficult to spray the trees when the weather suits. Further, the beetles eat only the young tips. Thus, a grower might spray one week, but no borers might come out. Next week or later, the soil might be moist when the beetles would go for the fresh tips—probably those not sprayed, or which had outgrown any applied spray mixture. One good feed, states Mr. Thiele, will do them for a very long time—up to six months. Thus, it is evident, that the spraying cannot be relied upon to cope with the pest, though undoubtedly many are killed by the spraying.

The pests appear on the leaves from September to November, according to weather conditions. Apart from this they live in the soil, and do great harm to the roots.

The foregoing hints will prove helpful to several enquirers on this subject.

# Export of Pears.

**What are "Somerset Conditions."**

In February, 1911, under the auspices of the Victorian Fruitgrowers' Central Association, a shipment of Pears was sent to London per s.s. "Somerset." It was quite a new departure. Many experts declared the Pears could not carry, and that the growers might as well throw their fruit overboard before the ship left Port Melbourne. However, the fruit did carry well, and realised high prices.

But that was fourteen years ago, and people are now asking, "What are 'Somerset' conditions?" Briefly, they are as follows:—

**System of Refrigeration.**—The s.s. "Somerset" was fitted with the direct expansion system, not the air circulation system, which is mainly used on boats carrying Apples.

**Pre-cooling.**—All the fruit was pre-cooled at least a week before loading into the chamber on the boat. When sending from cool store to ship, the trucks should be iced.

**Temperature.** — The temperature was 29 deg. to 31 deg. without variation, until within a week of arrival at destination, when the temperature was gradually raised. On the fruit being loaded, the chamber was sealed, and was not again opened during the voyage until the destination was reached.

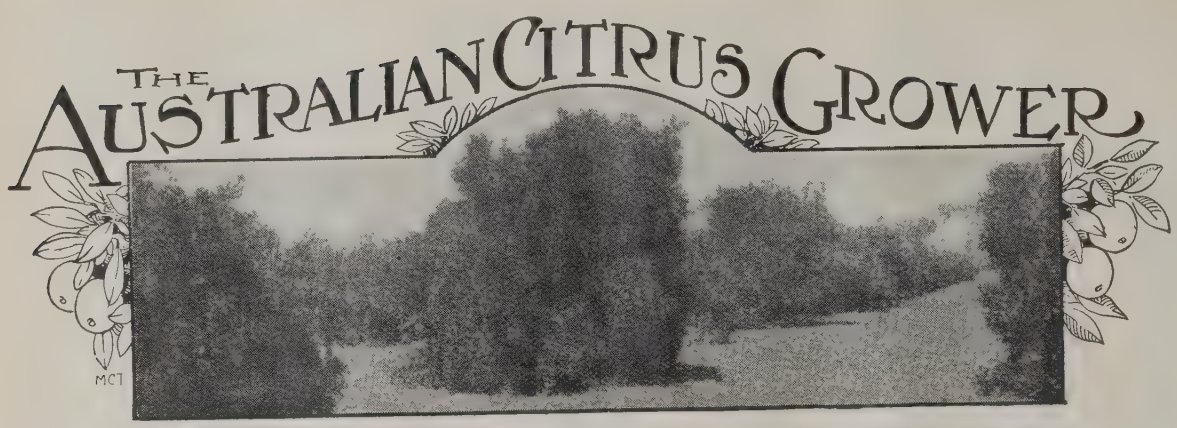
**Cases.**—Cases used when sending Pears by the "Somerset" were of different types, some growers used the Pear case or ordinary Orange case (long bushel), others used three trays packed on top of one another, and cleated together to make one case, some (but not many) sent their Pears in the ordinary dump case; but the fruit carried well in them all.

The success of the shipment was exceptionally creditable, it being the first attempt of its kind.

A second shipment was successfully carried out two years later, the same conditions being prepared on the s.s "Argyllshire." Other shipments have gone forward successfully since then.

### "Fruit World's" Circulation.

An advertiser writes.—I am receiving enquiries from far distant sources, —New Zealand, New South Wales, East Victoria to Western Australia. This speaks well for the circulation of "The Fruit World."




# Spring Irrigation of Citrus Orchards.

*(By W. R. Schoonover, Extension Specialist in Citriculture, University of California.)*

**Editor's Note.**—In this article (republished from the "California Citrograph"), a principle of irrigation practise is presented by Mr. Schoonover in a rather unique and very understandable way. The months, as in U.S.A., are quoted (as June, July, etc.,) but in parenthesis we have added the corresponding months for the Southern Hemisphere.

NO ORCHARD practice is more fundamental to tree health and profitable fruit production than the proper control of soil moisture. We believe that proper soil moisture control for citrus trees may be defined in two statements as follows:—

1. Tree health and high production are promoted by a drying out of the soil between irrigations and especially so in the spring and early summer.

2. When water is applied it should be distributed so as to wet the entire root zone in so far as this is possible.

The first statement has not been fully recognised by many citrus growers, with the result that many hundreds of acres of our older trees have gone into a decline because the soil has been kept too uniformly moist. Even in light soils where the drainage is excellent the feeder root system will deteriorate unless the soil is allowed to dry out between irrigations. If the soil moisture is maintained somewhere near the so-called optimum, soil ventilation takes place very slowly, and further, if the feeder roots are surrounded by moist soil, they can get what water they need without making any growth. If the soil is allowed to dry out as the water is used up fresh air enters the soil to take its place and as the wilting point is approached, the feeder roots make a rapid growth in a search for more moisture.

Last year the agricultural extension service co-operated with the Fillmore Citrus Association in making a soil moisture study in 15 typical orchards of the community. Some of these orchards had suffered in the past from the use of

**too much water**

in the early part of the season. When trenches were dug very few active feeder roots were found and most of these were under the trees where no water had been applied.

One orchard received no irrigation water between January and July 14 (July to January in Australia), and the spring rain fall was very light. With only this small amount of water the soil remained moist until about the middle of June (Dec.), because there was not much hot weather and the trees were not in good enough condition to use much water. Between the middle of June and July 14 (Dec. and Jan.), the soil dried out fairly rapidly, and during this same period great numbers of new feeder roots developed. After the irrigation of July 14 (Jan. 14) these new feeders took up moisture rapidly and the trees used as much water in one month as they had in three months previous to the development of the new roots. These new roots must also have absorbed much plant food which had been unavailable before their growth. At any rate their development was followed by an excellent new growth in the tops of the trees.

In spite of the dry season last year none of the 15 orchards at Fillmore dried out to a reasonable degree before the middle of May (Nov.), and in the heavier soils this point was not reached until a month later.

We do not wish to over emphasise the drying out of soils for the trees should never wilt, but laboratory studies in connection with field observations have shown that trees never suffer until the moisture content of the soil mass in the root zone has gone below the wilting point as determined by laboratory methods. It is not necessary that the soil get entirely dry, but it is essential that marked fluctuations in soil moisture occur rather than that the soil moisture be maintained at a somewhat uniform level.

The particular reason for laying stress on this point in a dry spring is that in many districts where water is available, growers have literally

**drowned their trees**

trying to make up for the dryness of the season, and our field studies have shown that specially in the coastal districts, orchards are as likely to suffer as much from "wet feet" in dry years as in very wet ones. This does not mean that some water could not be profitably applied at this time as will be brought out later.

One point has been clearly demonstrated, namely, that water cannot be stored in already moist soil early in the season for beneficial use later on. Another reason for drying out of the soil in the spring, especially with Navel Oranges, is that the new root growth and increased availability of plant food coming as a result of the drying out reduce the "June drop" (December "drop.") This point has been brought out in the soil management studies conducted by R. S. Vaile and Gordon Surr on the "dry bog" soils of Tulare county. The plots which gave the highest yields were the ones in which the moisture was relatively low and the amount of available plant food relatively high at the time for the setting of fruit. In several orchards it has been observed that the size and quality of Lemons have been greatly improved as a result of the new root and leaf growth which followed a drying out of the soil.

The second statement in the definition of proper soil moisture control was to apply moisture to

**the entire root zone.**

While it is true that the application of water at this season to soil masses

that are already wet will result in harm rather than benefit, it is also true that, if any portion of the root zone is dry, water which is available at this time of the year can be advantageously used in such areas. Because of scanty rainfall and hot dry winds we find that the soil is usually dry underneath the trees and in places not ordinarily reached by the irrigation furrows.

Special methods should be used to wet these soil areas at this time, at the same time avoiding the application of water to the areas already thoroughly moist. The normal condition for this time of the year is for the feeder roots under and between the trees to be supplied with moisture. One thorough winter irrigation generally makes up for the deficiency of rainfall in the row where the furrows ordinarily run, but it takes special attention to secure a thorough wetting of the dry areas which should be wet at this time.

It is very important that every citrus grower know two things:—

1. The actual moisture conditions in the soil at various seasons in the year.

2. The location and condition of the feeder root system of the tree.

The first can be determined by the use of a soil auger or tube and the inspection of the soil brought out, and the second by the digging of trenches in representative parts of the orchard. The judgment of most farmers is good as to what constitutes the wetness or dryness of light soils, but for heavy soils such as clays or adobes, it is hard to determine the danger point by inspection so it may be advisable for growers to obtain the aid of a laboratory in control of the soil moisture. However, regardless of soil type, any grower will be well repaid for the time spent in making soil borings and in studying the distribution and condition of the feeder roots.

Most of the growers who co-operated in the soil moisture studies in Fillmore were greatly surprised at the conditions found under the surface of the ground and many people in the community have greatly modified their irrigation practice as a result of the studies. In the main,

**less water will be used**

in the spring and a little more in the late summer and autumn.

In Orange county, as a result of a better irrigation campaign carried on the last three years by the agricultural extension service, the farm bureau and the association laboratory, irrigation practice has been greatly modified with the net result that soil moisture is now intelligently controlled and there is no longer just the mere application of water at regular intervals.

Several water companies have changed from a rotation to a demand basis and the result has been that fewer trees have been drowned in the spring, and they have been kept more adequately supplied with water during the period of drying winds in the autumn. The increased.

**growth of feeder roots**

obtained through a reasonable drying out of the soil in the spring has made it possible to store more water within reach of the roots so the trees have withstood the dry winds better.

To summarise, the recommendations for better control of soil moisture are as follows:—

Allow the soil to dry out reasonably in the spring and early summer before applying more water.

When water is applied, wet the entire root zone as far as possible.

Bear in mind that it never pays to put water on soil that is already wet unless this must be done to reach a dry area, but that it always pays regardless of the time of year to apply water to dry soil.

## BLUE MOULD ON ORANGES.

**(By W. M. Carne, F.L.S., Department of Agriculture, Western Australia.)**

The greatest cause of financial loss to the citrus industry in Western Australia is the wastage resulting from Blue Mould. It may be safely said that Blue Mould is the factor which decides whether the **exporting of Oranges** is profitable or not. Indeed, one may go further and say that the development of the citrus growing industry is checked more by Blue Mould than by any other factor.

It must be again emphasised that Blue Mould follows injury to the skin of the Orange. **Careful handling, the packing of dry fruit, and its dry storage when packed are the principal means of reducing Blue Mould wastage.**

There are, however, factors which render difficult the attainment of these ideals. Firstly, our Oranges are picked during the wet season, and proper sweating in the packing sheds is frequently difficult, if not impossible. Wastage increases rapidly under moist conditions, for slight injuries, which might escape infection under dry conditions, are readily infected when the conditions are moist.

Secondly, owing to the limited number of ships and the uncertainty of their arrival, packing of large consignments for export must be commenced weeks before shipment, or be rushed through in a few days. In the former case wastage often sets in before the fruit leaves the orchard, and in the latter there may not be time for sweating, and there is a strong tendency for rough and careless handling.

Lastly, and probably the most important point of all, is the fact that Oranges grown on the coastal plain develop a fine delicate skin. Experience has shown their great liability to injury and mould. Oranges from the Darling Ranges have coarser skins and richer color, and are less liable to this wastage. This variation of the fruit from different districts is not peculiar to this State, but has been noted in South Africa and the United States.

The following notes on Blue Mould wastage in Florida have been taken from a bulletin published by the United States Department of Agriculture. They show how the problem has been solved in Florida, and confirm the fact that a sound, clean, unbruised skin will effectively protect an Orange from Blue Mould:—

* * *

## HINTS FROM U.S.A.

The changes which have taken place in Florida during the past five years are truly remarkable. The old type of packing house has almost entirely disappeared. Modern houses, equipped with the newest machinery for handling fruit properly, have been constructed in practically every citrus district in the State, so that at the present time the industry is practically well provided with the mechanical appliances for doing good work. The attitude of the growers and packers has changed more slowly, however. The Department has conducted a large number of field demonstrations in order to educate pickers to the necessity of careful work, and although much has been accomplished in this line, much still remains to be done. The introduction of better handling methods is largely a business problem. It has to do with the re-organisation of the forces of workmen and with the method of paying them rather than with discovery of the cause of a particular form of decay.

In California the occurrence of injury in preparing the fruit for shipment was associated with the way in which the work was done. The pickers were paid by the box, and naturally, each man was ambitious to pick as many boxes as possible during the day, irrespective of the character of his work. A premium was thus placed on rough handling. Several large companies, employing hundreds of men, demonstrated that by changing from the box-payment to the day-payment plan, and by insisting upon careful work they

**could practically eliminate**

all picking injuries. A change in the plan of payment is not in itself, sufficient to bring about better work, however; the workmen must be properly organised and supervised, and each individual picker amust be held responsible for the character of his work.

In California the change from the individual grower doing his own picking to the plan of the Association picking crews, resulted in very great improvement in the character of the work. The same plan has more recently been carried out in Florida with beneficial results.—W.A. "Journal of Agriculture."

## RELATION OF BY-PRODUCTS INDUSTRY TO MARKETING OF CITRUS.

### Low Grade Lemons and Oranges, which would Otherwise be Wasted or Clog the Markets, can be Profitably Utilised.

### Interesting information from California.

DURING the last few years most people connected with this industry have preferred to refer to the output as citrus **products** rather than citrus **by**-products. Perhaps this is because of the increasing importance of the industry. At any rate, "citrus products" is simpler, and I will so refer to it, writes Mr. J. G. Jameson, in the "California Citrograph."

The citrus products industry embraces all the various plants where fresh citrus fruits are converted into the more staple products. Perhaps the pioneer in the field was the plant now owned by the Bush people at National City. Others now operating are the Exchange Lemon Products Co. and the United Chemical Co. at Corona, the Exchange Orange Products Co. at San Dimas, the Citrus Products Co. at Whittier, the North Ontario Packing Co. at Los Angeles, and the various juice and marmalade plants in or near Los Angeles.

The **principal products** of the plants at present are the oils from the rind of the Orange and Lemon, the dried or otherwise processed peel, citrus pectin, concentrated or preserved juice, citrate of lime or citric acid from the Lemon and the marmalade or marmalade base from the Orange.

At present the mainstay of the Orange product industry is Orange oil. A fine product is being produced and marketed successfully. The Lemon product plants were fortunate to start with first, citrate of lime, then the final product of citric acid as their main objective. The Orange and Lemon oil and the citrate and citric acid have been for hundreds of years staple articles of commerce. They have a widespread use and when produced to conform to trade standards they find a ready market. The sale of these few products up to this time has largely paid the returns to the growers.

The history of the development to a commercial stage of nearly every one of these products is an entrancing story in itself. There are years of patient, careful research in the laboratory. One difficulty after another is encountered and overcome, both in perfecting the product and the process. Then there is the problem of production on a commercial scale, of adapting the product to meet the varying and exacting demands of the purchasers. The arrangements for the sale and distribution of the most worthy product are often not the least hard to accomplish satisfactorily. As you can readily see, all this cannot be accomplished by one man, but only by well organised groups of trained enthusiasts, each working for the same end **with the everlasting moral and financial support of the growers themselves.**

Statistics are not very interesting nor long remembered, but one must at least look at the proportion of the Orange and Lemon crop used for these various products to see the relation of this citrus products industry to the marketing of citrus fruits.

The normal cullage of **Lemons** some ten years ago, before these plants were a factor, was perhaps 5 per cent. This varied somewhat, of course, then as now, with locality, the condition of the crop and prices. At present in periods of high prices the amount handled by the various Lemon product plants is rarely less than 10 per cent. of the crop. About this percentage of the pick has been sent to the plants in the last 4 or 5 months of good prices. During the past season of large crops and low prices it exceeded 20 per cent. of the total amount picked and hauled to the packing house. Needless to say, **it is the low grade, poor keeping, off-size fruit which the Lemon products plants handle.** At the present time does any one think that this extra 5 per cent. and more of fruit would be held in California if it were not for these plants? No packing house manager would be allowed by his growers to dump fresh washer culls and off-sizes at the present prices, but they do approve of sending them to be made into various Lemon products. In the opinion of the Lemon people now and in recent months, the marketing of **even this small amount of low grade fruit would have turned a very satisfactory market into a disastrous one.** No one can say that if marketed, these low grades would have given satisfaction to the consumer as fresh fruit or would have enhanced the reputation or increased the consumption of California Lemons.

It seems to be very hard to increase the use of Lemons and we often notice how easily a small surplus of fruit breaks the market completely. The Lemon products plants furnish the outlet for any grade of fruit which it is unprofitable to market in these emergencies, and which otherwise is often sold to peddlers and speculators only to turn up later in competition with good fruit. Most of us feel that in spite of these plants there is still a substantial amount of low grade fruit being marketed which gives poor satisfaction to the consumer and sold as fresh fruit is detrimental to the California Lemon business, which shows that these plants are not at the limit of their usefulness.

The amount paid for Lemons sent to the product plants for the past eight years has averaged a little less than $10 a ton. This is about what one may expect to receive at the present time. **Lemons, of course, cannot be grown at this price.** The Lemon products industry can only claim to salvage fruit which otherwise would have little value. However, ten years ago $5 a ton was the going price for the small percentage of culls that the peddlers could use. Now they all have a value to the producer of twice that. Last season good Lemons did not average the grower over $30 a ton at the packing house, yet his culls will bring a third that amount or perhaps an aggregate of nearly one-half million dollars for the year.

**The field is just as great for the salvage of Orange culls.** The Orange by-products industry unfortunately did not get as early a start. It also had the misfortune to grow too quickly for a while. It got a setback, but is now fast making up for lost time. The plant at San Dimas is making a real success. It is returning to the growers $7 a ton on 14,000 tons of Oranges last season, all of which otherwise would have cost a dumping charge to the growers. Other plants are specialising on Orange juice or Orange oil or marmalade in a smaller way. But all together I think not more than the normal cullage of the Orange crop is being utilised by both the peddler and the product plants. Also returns have not been sure enough to encourage the diversion from the packed consignments of fruit which had any hope of bringing a net return to the grower.

By eliminating an increasing percentage of the low grade Lemons from the market at a substantial return to the grower, I believe that the Lemon product industry has achieved an important and almost indispensable position in the marketing of the California Lemon crop. We are proud of the fact that a large part of the success is due to the co-operative efforts of the Lemon growers themselves. The **Orange** products industry, while not yet a considerable factor in the marketing of the Orange crop, has even greater elements of success and everything points the way to the important factor it also may be in the marketing of the Orange crop if given the same support by the Orange growers as a whole, that has been given their plants by the Lemon growers.

### "Drink an Orange."

The foregoing is one of the many advertisements of the Victorian Railway Department designed to assist the citrus industry. Advices from California state that 24,000 "Sunkist" Extractors are now in operation. It is estimated that each one of these machines uses 50 bushels of fruit per year.

## CITRUS ORGANISATION IN U.S.A.

### Remarkable Record of the California Fruitgrowers' Exchange.

### Interesting Figures.

The following extracts of the recent report of the California Fruitgrowers (Citrus) Exchange, held over from previous issues, are now given hereunder:—

The total supplies of citrus fruits in the markets of the United States and Canada during the season 1923-24 again showed an increase over those of any previous season. A total of approximately 43,000,000 boxes of Oranges and Grapefruit and 5,500,000 boxes of Lemons were sold. Of the latter, California shipments represented 89 per cent., and importations from Italy the remainder.

Of the Oranges and Grapefruit, California supplied about 22,000,000 boxes, mostly Oranges, and Florida something over 20,000,000 boxes, of which about 60 per cent. were Oranges and 40 per cent. Grapefruit. . . . The total exceeded that of the previous year by 15 per cent., and was more than 60 per cent. greater than that of five years ago. In addition to the larger number of boxes sold, the California production ran to very small sizes—the boxes on the average carrying 30 per cent. more individual fruits than in the previous year, requiring an additional number of unit sales to consumers to dispose of a box of fruit.

The development in recent years in the California Orange production has been toward the Valencia Orange, which is shipped during the summer and fall months. The Valencia production now practically equals that of the Navel Orange, which moves during the winter and spring months, allowing an even supply of California Oranges throughout the year. However, the Florida shipments and the supplies from the other producing sections, which have increased in volume 135 per cent. in the past five years, move very largely during the California Navel Orange season, and therefore approximately 70 per cent. of the total year's supply is on the market in six months of the year, and only 30 per cent. in the summer and fall months. California's production of Valencias has also been continuously increasing, but the development of the demand for summer Oranges has satisfactorily absorbed the supplies in spite of the competition with constantly increasing supplies of deciduous fruits marketed in the same period.

The past season 29,500,000 boxes of Oranges and Grapefruit were shipped from November 1 to April 30, compared with less than 24,000,000 boxes last year for the same period—an increase of about 23 per cent. . . .

The total shipments of Oranges and Grapefruit from California as reported by the railroads for the year ended October 31, 1924, were 47,635 carloads, and of Lemons 13,097 carloads, or a total of 60,732 carloads.

There were shipped through the Exchange 32,715 cars of Oranges and Grapefruit, 11,551 cars of Lemons, totalling 44,266 cars, which represented 72.9 per cent. of the citrus fruit shipments from the State. The preceding year the Exchange percentage was 75.8 per cent. There has been an increase in the membership of the Exchange since last season, and the decreased percentage of the crop handled this season is due to the lighter shipments because of frost damage and extremely small sizes in the western part of the principal southern California territory, where the Exchange membership is strong, and to more nearly normal shipments in the eastern part of the territory, where the Exchange percentage is not as great.

In boxes Exchange shipments equalled 14,800,069 of Oranges and Grapefruit and 4,588,211 of Lemons.

The returns f.o.b. cars California from the fruit sold through the Exchange during the year, estimating the value of the cars yet unsold, were £10,103,099, making the delivered value to the wholesale trade £15,243,848. Using Exchange returns as a basis, the returns to California from the total 1923-24 crop were £13,965,247 and the delivered value to the wholesale trade £21,076,526, the latter amount including approximately £7,111,279 for freight and refrigeration. . . .

Losses due to bad debts and similar causes have been practically eliminated by having personal representation in the various markets. There was charged off during the year on account of losses in collections £430, or 4/1,000 of 1 per cent. of the f.o.b. value of the fruit. During the past 21 years, returns to California through the Exchange have equalled approximately £119,200,000; the credit losses during that period have been only £5,284, or about 44/10,000 of 1 per cent. of the f.o.b. returns.

### Cost of Exchange Service.

Greater volume of products handled by an organisation permits a lessened cost per unit for marketing as well as an enlarged and more effective service. The Exchange service is constantly being extended and strengthened to meet new or changing conditions.

Exclusive of advertising, the Exchange service cost an average of 5.45 cents per box for the season 1923-24. This cost covers the maintenance of all Exchange departments, the salaries and expenses of the sales force in the markets, brokerages, the complete daily telegraphic market news service, the collection of claims, legal expenses, the Exchange share of the expenses of the California Citrus League—which handles traffic, tariff and other general matters except marketing for the industry—organisation and development work in California, work on pest control, the Exchange Research Laboratory and all other operating costs.

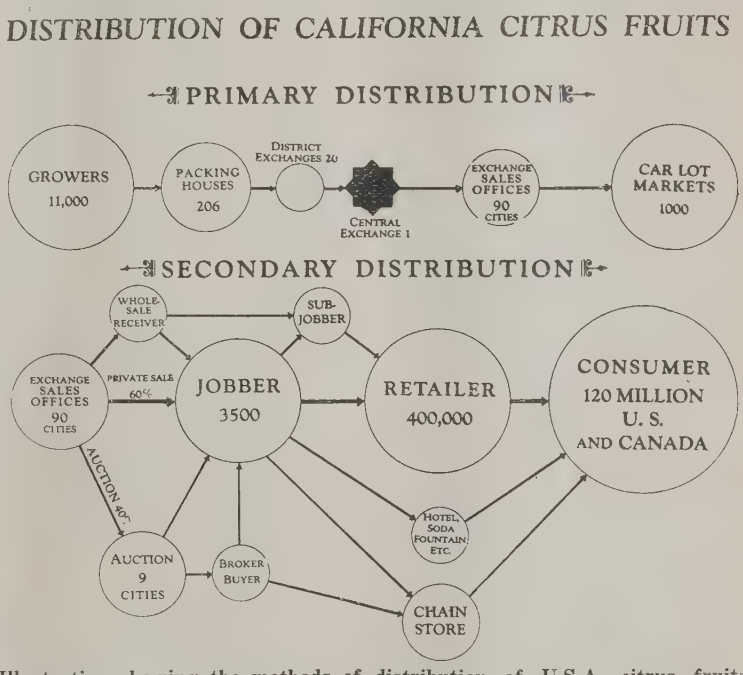



**Illustration showing the methods of distribution of U.S.A. citrus fruits from grower through wholesaler and retailer to the public.**

The District Exchange service cost on an average 1.41 cents per box, which made the total average operating cost 6.86 cents per box. This represents 1.75 per cent. of the delivered value of the fruit handled and 2.6 per cent. of the f.o.b. returns.

In addition to the Exchange operating cost, 4½ cents per box of Oranges and Grapefruit and 7 cents per box of Lemons were spent in the conduct of the advertising campaign and dealer service work, making a total average cost for both operating and advertising of 3.04 per cent. of the as before stated, is less than the delivered value of the fruit—which, charges of other agencies for marketing services alone.

# Fruit for Essence Manufacture.

### Tariff Anomalies Exist.

### Large Quantities of Australian Fruit Should be Absorbed.

**ESSENCES made from Australian citrus fruits are receiving certain concessions under the tariff regulations.**

**It is desired that essences in which other Australian fruits are used should receive the same consideration.**

**The result would be the profitable absorption of large quantities of fruit which now go to waste.**

FOR some time past manufacturers of essences have felt themselves to be suffering under grievous disabilities which could be removed if the tariff were readjusted. At the present time essences for use in confectionery, and for the soft drink trade are largely imported. Further, these essences, purporting to be largely composed of fruit, are, to a considerable extent, synthetically (artificially) compounded.

The opinion is firmly held, however, that if reasonable protection were given to essence manufacturers in Australia, the following beneficial results would take place:—(1) More Australian fruits would be used from which the essences are extracted; (2) the products would be richer in health value; (3) two Australian industries would be more firmly established, and (4) the price to the consumer would not necessarily be increased.

It is a remarkable fact that in many other countries (including America, England, Holland, France) thousands of tons of fruit are used for the production of essences, whereas in Australia there is only a very small amount used outside of citrus fruit—principally Lemons. The reason for citrus fruits being more largely used in comparison with other fruit, will be dealt with later in this article.

If the proposed alteration in the tariff be granted, the following fruits would be readily absorbed by essence manufacturers:—Raspberries, Blackberries, Loganberries, Strawberries, Pineapples, Bananas, Apricots, Prunes, Peaches, Oranges, Lemons, Passionfruit, Cherries, and many others, also nuts of all descriptions.

It may be of interest to note that the importations for the year ending 1923 amounted to £71,028, and that a considerable portion of this sum could have been distributed amongst fruitgrowers had the essence industry been receiving support.

The case for the essence industry was put before the Tariff Board in 1923, and it is understood that it was to be favorably considered. In consequence, however, of the Amending Act of Parliament, requiring a different procedure in connection with Tariff Board investigations, the report on the essence industry (in company with a large number of others) has, we understand, not been acted upon by the Minister.

On account of the near approach of Tariff consideration in the present season, however, it is essential that if anything is to be done in this matter, immediate action is necessary. This is especially important in view of the fact that there are very large quantities of fruit now grown in Australia, for which there is no profitable outlet. In the manufacture of essences, first quality fruit is essential.

It has been clearly recognised by Parliament that the manufacture of essences should be protected, and provision is made under one item in the tariff where essences pay 20 per cent. British, and 30 per cent. foreign, but oversea manufacturers are evading this duty by adding a small amount of proof spirit (alcohol). This means that on a semi-solid essence, instead of paying approximately 7/- per lb., they only pay approximately 7d. per lb. This evasion is possible because of the addition of the small percentage of alcohol.

It may be of interest just here to explain that when alcohol is used (as is necessarily the case for the extraction of essences from pure fruit), essence manufacturers are at once placed under the disability of having to pay the full excise duty on the spirit used, which is equivalent to about 45/- per liquid gallon. This is quite unfair, because the spirit is not used for its ordinary alcoholic purposes, but as an industrial medium for the extraction of the fine flavors from the fruit. This is recognised to some extent by the Government in the concession given as regards the spirit used for the manufacture of citrus essences above referred to.

This procedure is that where spirit in which a certain proportion of Australian citrus oils is used, it is permitted to pay excise duty at the rate of 17/- per liquid gallon instead of approximately 45/-. Why should not other fruits come under the same category as the citrus? The procedure is exactly similar, particularly as all oils and extracts manufactured in Australia used by perfumers receive this concession. Here, then, is an anomalous position. Manufacturers of perfumery (which is a luxury) are only charged at the rate of 17/- per liquid gallon for the use of the spirit in the manufacture of that product when the Australian raw materials (flowers, etc.), are used. If essence manufacturers, in producing a healthful fruit product, were given the same facilities, this would overcome the grievance under which essence manufacturers are not present keenly suffering.

To put the matter in a concrete form, perfumes manufactured outside Australia pay the following duties:—40/-, 45/- and 50/- per liquid gallon, plus an ad valorem duty of 20 per cent., 25 per cent., and 30 per cent., whereas imported essences pay only a duty of 30/- per proof gallon, and do not pay any ad valorem duty.

It should be explained, however, that culinary essences form only part of the activities of the manufacturers of this class of products. A large trade can be done in the flavouring products required by aerated water and cordial makers, confectionery manufacturers, biscuit bakers, and others. These manufacturers are large consumers of essences, and, with a little encouragement, their requirements can be readily filled from Australian sources.

The quality of the Australian essences is not in question. It has been amply demonstrated that in this respect they are equal, if not superior, to anything imported. It therefore seems difficult to understand—when the great primary industry of fruitgrowing is receiving every encouragement from the State Governments—why arrangements have not been made by the Commonwealth Government to support and assist the Industry by granting such an amendment of the tariff as will pave the way to a further outlet for the various fruit products.

## IMPERIAL FRUIT SHOW.

### Opportunities for Australian Citrus Growers.

**Schedules are to hand giving details of the Imperial Fruit Show to be held at London from 30th October to 7th November, and copies are available, gratis, on application to the Editor, "Fruit World," 9 Queen-street, Melbourne, Vic.**



# THE "Sunraysed" Courier



**FEDERATED DRIED FRUITS EXPORT CONTROL BOARD.**

**Commercial Representatives:**
A. F. Bell, E. S. Whitehead.
**Government Nominee:**
W. C. Thomas (Chairman).
**Growers' Representatives:**
J. J. S. Scouler, Red Cliffs, Vic.
H. D. Howie, Renmark, S. Aust.
A. L. Johnston, Mildura, Vic.
A. Yeates, Millendon, W.A.
Secretary—R. Marx.

**VICTORIAN DRIED FRUITS BOARD.**

**Commercial Representative:**
J. M. Balfour (Chairman).
**Government Nominee:**
E. Meeking.
**Growers' Representatives:**
Jas. Milne, Red Cliffs.
E. T. Henderson, Mildura.
A. Lochhead, Irymple.
Acting Secretary—J. M. Allen.

**SOUTH AUSTRALIAN DRIED FRUITS BOARD.**

Commercial Representative:
L. N. Salter (Chairman).
**Government Nominee:**
G. A. W. Pope.
**Growers' Representatives:**
H. D. Howie, Renmark.
H. G. Evans, Renmark.
H. Kay, McLaren Vale.
**Secretary:**
W. N. Twiss.

**AUSTRALIAN DRIED FRUITS ASSOCIATION.**

**Board of Management.**
H. D. Howie, Renmark.
T. C. Rawlings, Mildura.
J. B. Murdoch, Waikerie.
J. Gent, Nyah.
G. Kitchen-Kerr, Red Cliffs.
Australian General Secretary—W. N. Sumner.
South Australian Secretary — Stan. Oldham.
**London Manager:** W. P. Caro.

## A.D.F.A. FEDERAL COUNCIL MEETS.

### Association to Continue.

A SPECIAL Federal Council meeting of the Australian Dried Fruits Association was held in Melbourne from 24th June to 26th June, 1925.

The following delegates were present representing the growers in the districts appearing after their names:

Messrs. T. C. Rawlings (Chairman), Mildura, Vic.; A. Philpot, Renmark, S.A.; J. B. Murdoch, Waikerie, S.A.; J. Gent, Nyah, Vic.; G. E. Kitchin-Kerr, Redcliffs, Vic.; R. C. G. Frankel, Cadell, S.A.; H. H. Goodman, Woorinen, Vic.; Winterbottom, Merbein, Vic.; H. R. Jones, Melbourne, Vic.; C. A. L. Morant, Renmark, S.A; E. J. Roberts, Irymple, Vic.; H. R. Sloan, Mildura, Vic.; J. Victorsen, Clare, S.A.; A. P. Wishart, Berri, S.A.; M. Young, Mildura, Vic. Agents: J. F. Brazel (Messrs. Gibbs, Bright & Co.); G. A. Caro (Messrs. Gollin & Co. Pty. Ltd.); R. A. Haynes (Messrs. G. Wood, Son & Co. Ltd.). Mr. T. Bee was later permitted to attend in place of Mr. Caro.

Mr. Winterbottom was accepted as substitute for Mr. E. J. Casey, who was unable to be present owing to the death of his father.

The Chairman of the Board of Management (Mr. H. D. Howie) was unable to attend as, although much recovered in health after recent treatment, he was still convalescent.

He presented a report, in which he stressed the necessity of continuing the work of the Association. His report states, inter alia: "After a close observation of the operations of the State Boards of Victoria and South Australia for the past six months, I have no hesitation in saying that there is as much need as ever for an all-embracing Australian body such as the A.D.F.A."

His reasons were—"because the State Acts have a local application only, are for a duration of only two years, and with no power to fix prices."

The continuance of the Association was discussed exhaustively by all delegates, and on the motion being put it was decided to continue, only one vote being recorded against this course.

### "The Greek Party" Research.

### Industry Benefits by Cold Dip.

A report on the research work in connection with the cold dip method of processing was submitted, and the benefits that had accrued to all association growers referred to.

Mr. Goodland, who attended by invitation, gave much interesting detail of the work done in Mildura during the 1925 season.

He stated that Mr. Lyon (Viticultural Scientist) was now definitely of the opinion that the methods being pursued would ultimately result in great benefit to the dried fruits industry.

After much discussion by delegates as to whether the Association should reimburse the Mildura District Council for an amount of £592 already expended, and assume responsibility for the operations of the party, the Victorian representatives decided to withdraw the report, the M.D.C. to find the whole amount.

This conclusion was come to when it was pointed out that as the Mildura districts produced two-thirds of the fruit controlled by the Association it would, anyhow, have to find two-thirds of the amount expended.

### A Pioneer Passes.

### Delegates Stand in Silence.

During the Council meeting the Chairman reported that Mr. J. J. T. Lever had died suddenly on Wednesday, 17th June, a few days before the meeting.

Mr. Lever was well known to most of the delegates, as he was for many years Chairman of the Annual Conference.

He was a man who had at all times had given of his very best to the industry.

As a mark of respect and appreciation of his services to the Association, the delegates stood in silence.

### Dried Fruit Sales.

### Heavy Realisations Promised.

Heavy realisations in the dried fruit market in London are forecast in a cable received by the Chairman of the Commonwealth Dried Fruits Control Board, Mr. W. C. F. Thomas.

Particulars of sales for the week ending July 16, 1925, were:—

**Sultanas.**—1146 cases, at 65/- a cwt.; 2074 at 66/-, 1879 at 67/-, 1146 at 68/-, 695 at 69/-, 528 at 70/-, 627

at 71/-, 331 at 72/-, 307 at 73/-, 216 at 74/-. Total.—8949 cases (225 tons); average price, 67/10

**Currants.**—479 cases at 41/- a cwt,, 590 at 42/-, 392 at 43/-, 105 at 44/-, 640 at 45/-, 388 at 46/-, 329 at 48/-. Total.—2974 cases (74 tons); average price, 43/10.

A few small parcels were sold up to 49/- a cwt.

**Lexias.**—37 cases at 44/- a cwt., 67 at 48/-, 42 at 49/-, 392 at 50/-, 38 at 51/-, 138 at 52/-, 431 at 53/-.

Total.—1145 cases (28 tons); average price, 51/1.

**New American Raisins.**

It is reported that sales of the new American puffed Raisin have been large. It is said that the largest cake and bread makers in America have bought these Raisins in blocks as large as 20,000 cases. These bakers say that it will increase the output of Raisin bread and cake, as it simplifies the work of the bakeries.

**New Use for Raisins.**

The Sun-Maid Raisin Growers of America report having discovered a new use for Raisins, states the Commonwealth Department of Markets. They are found to be effective as an afternoon bracer to take away "that sleepy feeling." It is reported that a number of large business corporations are now serving a small package of Sun-Maids to their entire office force as a mid-afternoon bracer. One of the best known newspaper offices in Canada has arranged for small packages of Sun-Maid Raisins to be passed among their employees each afternoon, and every employee, from the printer's devil to the president, takes ten minutes to refresh himself with a handful of appetising and healthful Raisins. The practice might well be adopted here.

**Fruit Export Trade of U.S.A.**

Figures just received disclose the remarkable increase in the exports of fruit from U.S.A. during last year. The total of dried and evaporated fruits exported in 1924 totalled 399,000,000 lbs., compared with 190,000,000 lbs. in 1923. Chief amongst these were—1923 in parenthesis—

Raisins, 29,700,000 (16,700,000).
Dried Apricots, 30,400,000 (20,100,000).
Prunes, 221,000,000 (59,000,000).
Dried Peaches, 12,500,000 (4,600,000).
Dried Apples, 29,700,000 (16,700,000).

**London Letter.**

Mr. W. P. Caro, A.D.F.A. Manager for the United Kingdom, writes as follows:—

"Our dried fruit season has opened up very satisfactorily. There is not the slightest doubt that the work we were engaged in last year has had the accumulative effect of focussing the attention of the public and trade on our new season's dried fruits. By creating a demand and supplying good quality produce (these remarks are particularly applicable to our new season's Apricots and Sultanas) the market is automatically strengthened, and the results are reflected in increased prices to the growers.

"We are looking forward to the first arrivals of new season's Lexia Raisins, Peaches, Pears and Nectarines, which should be arriving very shortly. When they arrive, we shall be able to replace the old season's fruits on show in the Australian pavilion.

**"British Empire Exhibition.**—The British Empire Exhibition of the 1925 season was opened by the King on Saturday, May 9th, and the spectacle in the huge crowded stadium was a very impressive one.

"The official opening of the Australian pavilion took place at 1 p.m., and for the remainder of the day many thousands of visitors passed through the pavilion, which this year is brighter and better than ever.

"Australian dried fruits were well to the fore, and temptingly displayed in various exhibits, and eight girls were busily engaged selling sample packets to visitors from four selling stands situated in different places in the pavilion.

**HAMBURG**
(GERMANY).

**Ph. Astheimer**
**And Sohn,**
**Fruit Brokers . . and Auctioneers**
(GERMANY)
Established 1863.
Largest receivers of Australian, Tasmanian, and American APPLES.
**Foreign Apples a Speciality.**

"We have been permitted this year to sell from a small stand in one corner of the vineyard, so that visitors who are impressed by the striking illustration of the actual growing, picking and drying of Grapes can immediately purchase a sample packet, and test for themselves the splendid quality, flavour and cleanliness of our dried fruits.

"In the space next to the vineyard diorama we have installed a dried fruit demonstration stand, where visitors are shown the best methods of cooking dried and evaporated fruits, and at the same time purchase our fruit in cartons and obtain free recipe booklets. We are arranging, as we did last year, to distribute many thousands of our recipe booklets free to visitors. Behind the demonstration stand we have displayed our dried fruits en masse, and the new season's Currants and Sultanas (hot and cold dip) prove that our claims that Australian dried fruits are unequalled for quality, flavour and cleanliness are based on a firm foundation."

# The Cold Dip Process.

**Satisfactory Tests.**

**Official Report by A. V. Lyon, B.Ag.Sc., of the Mildura Vineyard Protection Board, in consultation with the Cold Dip Committee.**

THE COLD DIP, as an aid in the drying of Grapes, has been used in the Mildura district at intervals, on a small scale for many years. It gave its best results in the 1924 drying season, when certain alterations in the process were made by Greek viticulturists who had recently come to the district.

The chief alterations, as compared with previous practices, consisted of the spraying of the fruit, a greater concentration of potassium carbonate and a greater quantity of olive oil.

It is unsafe to generalise on the results of one year's work; and further, a wider scope of investigation is essential.

Nevertheless, the following notes on the methods employed last year will be of interest. They are given with the reservation that further experience may show the necessity for essential alterations.

**1.—Preparation of the Dip.**

The solution in which the Grapes are dipped is prepared by dissolving potassium carbonate in water and adding a small quantity of olive oil, which readily emulsifies. The potassium carbonate is more readily dissolved by putting it in the water and leaving overnight.

The quantities are as follows:—
25 gallons water.
12½ lb. carbonate of potash.
1 pint of olive oil.

The water may be warmed in order that the potassium carbonate will dissolve more easily. Portion of the solution (say about 4-gallons) is then taken out in a separate vessel, into which the olive oil is poured, and emulsified by violent agitation. A garden spraying syringe is excellent for agitating the liquid.

The emulsion is then poured back into the dip tank, and the solution is ready for use.

The emulsification may be made direct into the dipping tank, but thorough agitation is more difficult in this case.

A good quality olive oil is required, and a complete emulsification should be secured. Any floating portion, such as an oil film, or a saponified scum, should be discarded, if it is impossible to incorporate it within the body of the liquid.

**2.—Use of the Beaume Hydro-meter.**

The Beaume hydrometer is used as a measure of the concentration of the solution of potassium carbonate. The addition of olive oil, in the pro-

portions mentioned above, makes but little difference to the density; so the hydrometer may be used either before or after the making of the emulsion. A Beaume reading of a little over 5.5 will result, and the instrument may thus be used as a check on the weighing. The graduations of the Beaume hydrometer should be of such a size that the instrument can be read to half a degree.

The instrument is not essential for the first preparation of the dip, as greater accuracy can be obtained by weighing. It is possible, however, that the concentration of the dip will alter with use. If this proves to be the case, the use of the hydrometer will be essential, in order that the required concentration may be maintained.

Wastage of the solution in the dip, then, may be made up by adding water, and then adding carbonate of potash until the required Beaume reading is obtained.

An alternative method is to make up stock solution, in the same proportions as the dipping solution, and add this to the dip when required. This method will be applicable only if it is found that there is little alteration in the concentration of the dip after use.

Until this question has been investigated, it is preferable that concentration should be obtained in the first instance by weighing and that the Beaume reading should be taken as a check.

**3.—Method of Dipping.**

A.—The fruit may be dipped in diptins. It is thought that the period of immersion should be at least half a minute, though a longer immersion will do no harm. Experiment may prove that this period of immersion can be shortened without deterioration; or conversely, that a long immersion is necessary. It is essential, however, that the berries should be uniformly coated and this must be obtained either by longer immersion or by increasing the strength.

**Method of Drying.**—It is generally agreed that best results are obtained by drying on trays direct in the rays of the sun. A quantity has been dried on the racks with good results, and direct exposure may not be essential.

**4.—Subsequent Treatment.**

If, after two days, the rate of drying appears unsatisfactory, the fruit is sprayed in early morning with a solution of similar concentration to the dip. It is also sprayed, if wet by dew or heavy rain. The solution which has been used in the dip will be found satisfactory.

**5.—Individual Judgment.**

There are several points of difference in fruit from the cold dip, as compared to fruit from the hot caustic dip. With a little experience, a correct judgment can be formed as to the amount of cracking required from the hot dips. No such cracks, however, occur with the cold dip so it may be that it is impossible to tell, by immediate inspection, whether the dipping has been satisfactory.

On the other hand, by an examination of the berries, and of the film left by the cold dip, it may be possible to determine a satisfactory dip. The appearance of dry patches on the berries after dipping is considered unsatisfactory.

It is also possible that the concentration of the dip should vary with the sugar content of the Grapes. The feel and appearance of the dried fruit is totally different from fruit processed by hot caustic. We must stress, however, that the fruit must be thoroughly dried.

**6.—Varieties Other than Sultana.**

It is probable that the concentration of the solution for dipping should vary for different varieties of Grapes. Mr. L. Mansell, of the cold dip committee, has supplied the following figures:—

Gordo Blanco or Waltham Cross, 25 lb. carbonate of potash per 25 gals. water.

There is no agreement whether it is necessary to increase the olive oil proportionately.

**7.—Bulk Quantities.**

No exact information is available in regard to the quantity of material necessary to produce one ton of fried fruit, but it is thought that, with efficient drainage back into the dip 25 lb. of carbonate of potash and one quart of olive oil will suffice in the case of Sultanas.

**8.—The Dip Tank.**

It is impossible to issue definite recommendations in regard to type of dip as the minimum period of immersion, on which the size of the tank depends, is not known. Although the present dip-tanks are not very suitable, they will serve as a makeshift until the information becomes more definite. Under these circumstances, the committee feels that they were not justified in recommending any special type of dip-tank, and that the question must be left to the ingenuity of the growers, until the various proposed types are seen in use.

**Summary of Cold Dip Process.**

1. Make up a dipping solution, having 1 lb. of carbonate of potash to 2 gals. of water. Beaume, equal to 5.7 approximately.

2. Withdraw a portion of this, and emulsify the olive oil in it. Allow 1 pint olive oil for 25 gals. of dip solution.

3. Immerse the Grapes for at least half a minute.

4. Dry in the sun, if practicable.

5. Spray with solution from the dip, or similar preparation, after rain or heavy dew. A heavy spraying is required only after heavy rain on the fruit.

6. Spray at intervals of two days, if rate of drying be unsatisfactory. Spraying should be done in early morning.

7. Dry the fruit very thoroughly and box while cool.

**General Notes on the "Cold Dip."**

The increase in the export proportion of our dried fruit and the necessity for obtaining a satisfactory price overseas has led to a more critical examination of our dried fruit products.

Certain disadvantages of the hot caustic dips have been apparent for some time. The chief of these disadvantages may be listed as follows:—

1. The cracking of the skin allows exudation of sugar and consequently massing of the product when packed.

2. The skin is the natural protection covering of the berry. When it is partially destroyed, by hot caustic solution, decay and darkening results unless prevented by quick and thorough drying.

3. On many bunches a proportion of the berries are of inferior quality, being of low vigour, and having thin skins and a low sugar content. The effect of the caustic soda solution is often too severe on such berries, the ultimate result being that they darken to such an extent that a mixed sample results.

4. The partial disruption of the berries allows more rapid absorption of moisture.

It is hoped that these faults may be avoided by the use of the cold dip. Under favourable conditions of drying, a more even sample of fruit of light colour results. In addition, the skin of the berry remains intact, and is further preserved by the use of olive oil. Thus absorption of moisture and massing of fruit are prevented. Trials made in previous years did not yield a satisfactory product, except in cases where an exceptionally favourable drying period occurred.

The Greek settlers in our district have made two changes, namely, increase of concentration of the dip solution, and spraying of fruit while drying. Both of these operations tend to hasten drying, and they may do so to such an extent that the former objection to the cold dips (a long drying period) will no longer exist. Thus in the cold dip process we may combine the two necessities —preservation of the entire berry and a drying period sufficiently short to prevent darkening of the berries.

**Conclusion.**

It is hoped that the foregoing article will serve as a basis for those growers who wish to dry fruit by the "cold dip" process. It is realised that vital alterations may be found necessary as our experience becomes extended.

Arrangements will be made in the coming season to demonstrate the process in our principal fruit-drying centres.

**Issued by the Mildura District.**
**Council of the A.D.F.A., Mildura.**

# The Overseas Transport of Australian Apples.

## "Brownheart" and Its Control : The Value of Scientific Research.

(*By Jas. H. Lang, Harcourt, Vic.*)

After a study of the valuable Bulletins issued by the Food Investigation Board of the Department of Scientific and Industrial Research, England, the following article has been compiled by Mr. J. H. Lang, of Harcourt, Vic., for consideration by the Annual Conference of the Fruitgrowers' Cool Stores' Association of Victoria.

ONLY A FEW YEARS ago the charge was made, and with some degree of truth, that up to then in the study of the problems of refrigeration pure science had done nothing, and the knowledge that had been acquired was the result of the experience of so-called practical men.

Since then, however, scientific investigations have been carried out in various countries, and the result has been to confirm or modify the conclusions of those engaged in the commercial practice of refrigeration.

One of the most important of these investigations was that carried out by the Food Investigation Board of the Department of Scientific and Industrial Research on the problem of Apple transport overseas, with special regard to Brown Heart.

The Australian Apple export season of 1922 was one of the most disappointing in the history of the trade. Of a total of 2,000,000 cases, it has been estimated that between 500,000 and 600,000 arrived in England in a severely damaged condition. The Apples appeared perfectly sound externally, but when cut open disclosed areas of dead tissue, rendering them unfit for consumption. This had the effect of undermining public confidence in the Australian product. The Hon. A. H. Ashbolt, the Agent-General for Tasmania, estimates the total loss to be in the neighbourhood of £250,000.

In January, 1923, an expedition of four scientists, under the auspices of the Food Investigation Board, was sent to Australia to investigate the cause of these losses. The outstanding questions it hoped to answer were:—

(a) Is the disease predetermined some time before its actual appearance by "inherent vice"?
(b) Does Brown Heart appear before shipment, or in the holds during the voyage?
(c) What are the conditions either in the orchard or during the handling and transport which give rise to the disease and how are they to be avoided?

It has long been known that the Apple, in common with all other living material, produces carbon dioxide, and consumes oxygen, and that this

**vital process of respiration**

does not cease in cold storage. Further, it has been established in the laboratory that English Apples would develop Brown Heart in cold storage when held under condition of restricted ventilation, such as would allow too great an accumulation of the carbon dioxide which the Apples produce. In the absence of such condition Brown Heart was never observed to occur.

In the 1923 season special precautions as regards ventilation were adopted in most ships. Brown Heart did not appear in any of the ships on which voyages were made, and, as far as is known, was only present in two of that season's shipments.

The

**possibility of Brown Heart**

occuring before shipment was thoroughly explored, with negative results. Though a systematic search was made at the orchard, wharf, etc., no instance of the occurrence of Brown Heart was recorded.

This evidence thus indicates that the disease develops in the holds of the ships during the homeward voyage, and the conditions which give rise to it are those accompanying insufficient ventilation of the hold, and that such conditions can be guarded against and all danger of the disease occurring eliminated.

The whole question thus becomes a problem of ventilation. Serious losses may occur when

**ventilation is inadequate;**

excessive ventilation may also be a fault. The atmosphere surrounding the fruit controls the rate of ripening; this effect is probably second only in importance to that of temperature itself.

The ripening is retarded by the presence of carbon dioxide, and by the sub-normal concentration of oxygen. It is only in atmospheres containing too much carbon dioxide that the disease of Brown Heart is apt to manifest itself.

It is necessary to provide sufficient ventilation to keep the carbon dioxide from rising above a level of 10 per cent. In exceeding this percentage, Brown Heart is encountered, and in falling below it the retarding effect of the gas upon ripening is sacrificed.

If ventilation has such an important bearing on the successful carriage of fruit, how is it that cargoes have been successfully carried in the past without intentional ventilation?

The answer lies chiefly in the curious fact discovered by the expedition, namely, the surprisingly large amount of accidental ventilation of holds due to leakage.

The practical questions are:—

(1) What amount of ventilation is necessary?

(2) How can ventilation be regulated?

(3) What is the extent of accidental leakage?

(4) How far is accidental ventilation brought about as the result of diffusion of individual gases, and how far by mass movement of the mixed gases?

The amount of carbon dioxide formed per day, and requiring removal is not large, being about 12 cubic feet per ton of Apples (50 cases) per day at a temperature of 70 deg. F., and only about 2.5 cubic feet per ton per day when cooled to the temperature of carriage, say, 35 deg. F.

The control of ventilation depends on the

**system of refrigeration**

employed. Whether it be no forced air circulation (grid or direct expansion system) or the air circulation or battery system. Two holds of the former class, and three of the latter, all carrying Apples, were subject to investigation throughout a voyage from Australia to England.

The highest value of carbon dioxide recorded in holds with air circulation was 2 per cent., this indicates total ventilation equivalent to the introduction of about 300 cubic feet of air per day per ton of Apples in the holds. There appears to be little doubt that the positive and negative pressures in the trunkways, due to the action of the fans, are responsible for this.

In holds without forced air circulation there is little or no margin of safety unless definite provision for ventilation is made. It was noticed that the percentage of carbon dioxide in the holds rose to the danger limit at the outset of the voyage.

Natural leakage, not being sufficient to cope with the rate of carbon dioxide production, the holds were ventilated for a short time. After the fruit was cooled, accidental ventilation was sufficient to prevent the carbon dioxide from rising above 8 per cent., except towards the end of the voyage, when it reached 13 per cent.

It is not too much to say that

**this accidental leakage**

has been responsible for the safe carriage of cargoes in the past in those vessels where no intentional ventilation was given. Where disaster has occurred, the accidental ventilation has been insufficient.

How is this accidental ventilation caused? Marine engineers state that the hull of a ship suffers both bending and compressions in its motion through waves. This may produce variation in the volume of the holds to cause considerable ventilation through closed hatches.

The increase of this "bellows" action is probably an important factor in increasing the ventilation during rough weather. This increase during the roughest weather was found to be about half as great again as when the vessel was steady in port or in a very smooth sea.

So many factors influence this accidental ventilation that the problem calls for further investigation, and can not by any means be regarded as solved. Analyses made or air in ships' holds proves convincingly that "pocketing" does not occur as regards gas.

In regulating the ventilation of the holds no definite rules can be given to cover all cases except that it should be such as to maintain the

**carbon dioxide concentration**

at not more than 10 per cent.

Instruments to determine the percentage of carbon dioxide are essential, and without these the control of ventilation is as impossible as temperature control without thermometers.

In 1922 analyses were made of the condition with Brown Heart.

gas contents of holds on arrival in England, and as high as 38.5 per cent. of carbon dioxide was recorded, the fruit in this hold being in bad

The density of stowage, the size of the chamber, and the presence of fruit in adjacent chambers are factors that have a direct bearing on the carbon dioxide concentration in the holds.

With regard to temperature, the life of the Apple in storage is prolonged by a reduction, due—(1) to retardation of the rate of ripening, and (2) the checking of mould development.

As the juice of an Apple freezes at about 28.5 deg. F., the temperature cannot be reduced indefinitely. Even when a low temperature is not carried so far as to freeze the fruit, it may cause "internal break down," and on the other hand "bitter pit" may develop with the ripening of the fruit at higher temperatures; on the whole

**from 32 degrees to 34 degrees F.**

may be recommended as suitable for most varieties.

The desiderata with regard to temperature are:—

(1) Cooling to 32 deg. to 34 deg. F., with the least possible delay after gathering.

(2) The maintenance of a uniform temperature of 32 deg.-34 deg. F. throughout the bulk of the cargo, and throughout the voyage.

The question of pre-cooling of Apples was inquired into, but from the limited data available, the expedition was unable to come to any conclusion for or against the adoption of this system.

The need for further research is emphasised especially with regard to carbon dioxide development and ventilation temperature control and humidity, also the treatment of fruit in the orchard, and prior to shipment.

The investigations were continued this year, and the issue of the report on the observations is awaited with interest.

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## BROWN HEART IN APPLES.

### S.S. "Northumberland's" 116,000 Case Cargo.

### Legal Case Against Shippers Fails.

**London, July 21.**

A legal case which has been outstanding for over three years has just been decided in London in favor of the shipping company, according to cabled advices from Reuter's and the Australian Press Association.

On the King's Bench division, Mr. Justice Branson, after a hearing lasting 10 days, gave judgment in favour of defendants in the case in which F. C. Bradley and Sons, Covent Garden fruit merchants, sued the Federal Steam Navigation Company for damages in respect of a cargo of 116,000 cases of Apples from Hobart to Liverpool in 1921. Plaintiffs contended that the Apples suffered from brown heart in consequence of carriage in the hold of the ship "Northumberland" without sufficient ventilation. Defendants denied negligence, and said that the Apples suffered an inherent defect.

Mr. Justice Branson, in delivering judgment, said that he was not satisfied that the damage done to the "Northumberland's" cargo was caused by an excess of carbon dioxide in the hold. **He thought that the 1921 Apples were probably unduly perceptible to internal browning.** He found that the "Northumberland" was seaworthy. Her holds were in a proper condition to receive and carry Apples, and the ship's personnel exercised all proper care. He was therefore driven to the conclusion that the 1921 Apples suffered from

**some inherent defect**

which made them incapable of enduring the voyage to England in a properly equipped ship. There was little doubt that some of the Apples had been "brought along" by an early season. The "Northumberland" was due to arrive at Hobart on March 19, but did not arrive till April 16. Notice of the postponement was sufficient to stop the picking of Apples intended for shipment in March.

His Honour thought that it was perfectly plain that the fruit was not noticeably over-ripe, but over-ripeness was a question of degree, and it might have been the seed of subsequent trouble in the fruit. He could not see any fault in the method of stowage. There was no pecuniary temptation to the owners to overcrowd their holds, and it was inconceivable, if the officers of the ship were telling the truth, that there could have been any concentration of carbon dioxide in the holds of strength necessary to affect the Apples.

His Honour accepted the officers' evidence, which disposed of the suggestion that there could have been more than seven per cent. of carbon dioxide in any hold during the voyage, and he was, therefore, driven to the conclusion that the Apples were pre-disposed to receive damage. Plaintiff's case, therefore, failed. Judgment was entered for defendants, with costs.

Mr. Justice Branson granted a stay of proceedings and leave to appeal within a fortnight.

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**Apples and Oranges for China.**—Mr. J. H. Lang, who has been taking an active interest in the question of shipping Apples and Oranges from Victoria to China, advises that there is every possibility of the proposed shipment being postponed until May or June next year, owing to the unsatisfactory political position in China.

# Queensland Fruit Marketing.

## Appeal by Committee of Direction Dismissed with Costs.

### Violation of the Constitution.

**The High Court of Australia on June 30 dismissed with costs the appeal of the Committee of Direction of Fruit Marketing against the decision of Mr. Justice Macnaughton in favor of the growers and agents, and restraining the Committee of Direction from claiming to be the sole selling agent for Queensland Bananas and other fruit.**

THE DECISION of the High Court is so far reaching that fruitgrowers and all interested in organisation and marketing will study the judgment carefully.

The appeal concerned the construction of the Queensland Fruit Marketing Organisation Act of 1923. In one possible construction it also concerned the validity of the Act in part, and its operation in toto.

**History of Appeal.**

One respondent, William Henry Collins, was a Banana grower, and the other respondents, W. Arkell and Sons (states the Brisbane "Courier"), were produce agents. It was alleged that the appellant committee, since July, 1924, had prevented and threatened in the future to prevent Collins from consigning, forwarding, and delivering Bananas and Tomatoes grown in Queensland to agents in Brisbane, Sydney, Melbourne, and Adelaide, or to any person other than the committee itself or its interstate agents. As to Arkell and Sons, the committee had prevented and prohibited them from receiving for sale and selling any Bananas in Brisbane, and claimed the right to prevent and prohibit them similarly as to any fruit and vegetables grown in Queensland. The committee, claiming to have a statutory monopoly to sell Bananas and Tomatoes grown in Queensland, not only advertised its claim, but caused Bananas and Tomatoes consigned by rail to other persons to be diverted to its own possession. It was on this ground alone that the C.O.D. asserted its right to do the acts complained of. Mr. Justice Macnaughton held that the committee had not the powers it claimed, and made a declaration and granted an injunction accordingly. Mr. Justice Macnaughton's decision was challenged by the committee. In his judgment, Mr. Justice Macnaughton had granted, in addition to a general declaration, an injunction restraining the Committee of Direction from selling or offering for sale Queensland-grown fruit.

**High Court Judgment.**

The High Court varied the order, and made the following declaration:—

**That the Committee of Direction is not entitled to do any of the acts following:—**

**(1) Prohibit, prevent, or hinder the plaintiff, William Henry Collins, or any other grower of Queensland-grown fruit, who claims to be entitled to send or deliver for sale fruit within the meaning of the term "fruit" in the Fruit Marketing Organisation Act of 1923, from carrying on the trade or business of the said Collins, or such other grower and seller of fruit within the meaning aforesaid.**

**(2) Demand, seize, or divert any fruit within the said meaning consigned or sold by or to the said Collins, or other grower.**

**(3) Prohibit, prevent, or hinder the plaintiffs, W. Arkell and Sons, or any other duly licensed farm produce agents in Queensland, who claimed to be entitled to receive for sale or sell fruit grown in Queensland from carrying on their respective businesses of fruit agents, salesmen, and auctioneers of fruit.**

**(4) Demand, seize, or divert any fruit consigned or sold to or by the said W. Arkell and Sons, or other duly licensed farm produce agents.**

The Chief Justice (Sir Adrian Knox) did not come to Brisbane for the present sittings of the High Court, and his judgment was delivered by Mr. Justice Isaacs. It differed materially from those of the other judges.

**Chief Justice's Judgment.**

The Chief Justice said that, by Section 2 of the Act, "marketing" was defined as including everything involved in the transmission of fruit from the producer to the consumer. If that meaning was to be given to the word "marketing" in Section 7 (1), and it was not suggested that there was any indication to the contrary in the context he thought that the phrase "take control of the marketing of all fruit" meant that the C.O.D. was invested with power to direct when, how, and by whom each operation involved in the transmission of fruit from the grower to the consumer should be carried out. In his opinion it was not necessary to consider whether the provisions of the Section 7 (1) standing alone would confer on the C.O.D. the power to buy or sell fruit, for by Section 6 (5) power was expressly given to purchase or sell goods, chattels . . . and any other property whatsoever. For those reasons the Chief Justice was of opinion that so far as its validity was not affected by the provisions of Section 92 of the Commonwealth Constitution Act. the Fruit Marketing Act conferred on the C.O.D. power to do the acts complained of.

Continuing, the Chief Justice said that, in his opinion, it was not necessary to determine whether the Act did or did not purport to restrict both interstate and intrastate trade. The Act effectively restricted intrastate trade. He thought the Supreme judgment should be varied by limiting its operation to acts done, or threatened or intended to be done, in restriction of trade, commerce or intercourse between the State of Queensland and any other States, and to any claim of priority to do any such acts.

**Mr. Justice Isaacs.**

Mr. Justice Isaacs said that, in his opinion, Mr. Justice Macnaughton's decision should in substance be sustained. The pivotal portion of the Act was: "The Committee of Direction as from a date to be fixed by the Governor in Council by Order in Council shall take control of the marketing of all fruit." On those words arose two questions: (1) Did the words "take control of marketing" include the exclusive power to sell, and therefore the power to prevent others from selling? (2) Did the words "all fruit" include fruit the subject of interstate trade? If the first question be answered in the negative the appeal must fail, because, as stated, the acts complained of were done solely in order to

**monopolise the power**

of sale, but the actual powers of the committee would remain in that case subject to the next question. If the second question be answered in the affirmative the appeal failed, because the whole Act would be invalid, as in violation of Section 92 of the Constitution, the words "all fruit" not being in themselves susceptible of division so as to sever the bad and leave the good standing. By the "bad" he meant the part invalidated by Section 92 of the Constitution, and by the "good" he meant the intrastate part not directly affected by the Constitution. The reason he thought the words "all fruit" not susceptible of division was that, reading them in conjunction with the rest of the Act, the Queensland Legislature intended by one indivisible scheme to regulate the whole field or none. To declare invalid the interstate part, and to maintain as operative the intrastate part, though not contrary to the Constitution, would be, nevertheless, as a matter of construction, so subversive of the scheme of the Queensland Act that it would not represent the will of the Legislature. To eliminate a very extensive part, and leave it free from State regulation, and yet to maintain the State regulation of the remainder, would give rise to a situation so diversive in operation as to be incompatible with the generality of the words actually used by Parliament.

His Honour continued that the phrase "take control of the marketing" was a composite phrase, and needed careful examination. There was no statutory definition of the words "take control," and they must, therefore, be interpreted by reference to the Act as a whole. He could not find a word indicating a monopoly of sale by the committee, or a transfer of the property in the fruit from the growers or any intermediate owner to the committee. No reference was made as to the Committee

**accounting to the owners**

for the value of the fruit, or for the proceeds of its sale. There was much to the contrary. Taken altogether, the phrase "take control of the marketing" was a compendious expression of the function of the committee in establishing governmental rules for the benefit of consumers to be complied with by producers and intermediaries between them and the consumers, and also the further function of assisting the producers on the way.

His Honour said that the words "all fruit" were undoubtedly large enough to embrace both fruit marketed for State trade and fruit the subject of interstate commerce. But it was made plain that the area indicated was the "State of Queensland only." It was true that that was indicated by a comma, but it had been ascertained that the actual Act assented to by the Governor had the comma after the word "only," and not before it. It was well known that a print of the Bill as it left Parliament was presented for signature. A comma was one means of expressing intention in a writing, and a court was entitled to have regard to it, though not, of course, be controlled by it if the context nevertheless required otherwise. The position of the comma was extremely important. The well-known rule, when an act was "in dubio," of reading it as far as was consistent with its language, so as to prefer validity to invalidity, might and probably would be sufficient of itself to save from utter annihilation the statutory provisions themselves, and the structure raised upon it. But the added fact that the comma had been deliberately placed after the word "only" indicated to him that great care had been taken by the Queensland Legislature **to limit itself entirely to State marketing.**

"If I may," interpolated His Honour, "I would suggest that in similar cases State Acts should contain an express declaration that their provisions do not extend so as to affect trade, commerce, or intercourse among the States, or else, that they be intended in any case to apply to intrastate operations. That would guide all persons concerned, and probably in some circumstances save the Statute from complete ineffectiveness."

Continuing, Mr. Justice Isaacs said the appeal failed not because there was invalid legislation, but because the Act properly construed did not authorise

**the committee's interference**

with the plaintiff's right that is complained of. Plaintiffs were entitled to a declaration with regard to their own respective businesses and property, but the attempted representation of other growers and other agents was extremely vague. He did not think it necessary to say more than the right claimed by the plaintiffs was a legal right, to be unmolested by the C.O.D. in an unlawful way. The case was not dependent on any doctrine of equity, and personally he thought it unnecessary to complicate it by declaring rights as to persons who were really unascertainable and not identifiable, and who could not be held bound if the judgment were against respondents. In his opinion a declaration should be made in respect to the respondents only.

He concluded:—"As to restraining the committee from selling and thereby acting ultra vires of its statutory authority the Attorney-General was not a plaintiff. Apart, therefore, from individual wrong to the respondents, they had no cause of action, and that part of the judgment should be omitted. It must be understood that the due exercise by the committee of any of its actual powers under the Act, whatever they might be, would in no wise violate the declaration of the court.

"It remains only to be added that the omission of reference to an injunction is because the appellant is a public body who will, of course, observe the law as declared by the court, and no injunction is thought necessary. The liberty to apply, in case of necessity, which is open to the respondents, is a sufficient safeguard."

**Mr. Justice Higgins.**

Mr. Justice Higgins said that the word "control" in the Act was not defined. But the word "marketing" was defined as including (unless the context otherwise stated) everything involved in the transmission of fruit from the producer to the consumer. "Transmission" did not ordinarily mean buying and selling; it generally presupposed a previous sale (or a gift). In his opinion the provisions of section 6 (5) did not give the C.O.D. any power to purchase or sell fruit, and Mr. Justice Macnaughton was substantially right in his view of the Act. Because Parliament had not defined "control," the Court had to take the word in its ordinary sense. Mr. Justice Higgins said that he thought there was nothing in the Act to indicate power for the committee to prevent growers or produce agents from selling; on the contrary, it was suggested that fruit commission agents might continue their business subject to any voluntary agreement. Under Section 15 the Governor in Council was empowered, on the recommendation of the committee, to make such regulations "as may be convenient for the administration of the Act." But such regulations, he thought, must be confined to fees, etc., elections, etc., control of local associations, exemption penalties, levies, etc.

His Honour said that the facts as agreed on raised a question under Section 92 of the Constitution, which provided that **trade, commerce, and intercourse among the States "should be absolutely free."** But Mr. Justice Macnaughton very properly, in his opinion, did not deal with this question, finding himself able to decide the case on the mere construction of the Queensland Act. There was a distinction between a State Act affecting rights of property and a State Act restricting commerce between the States. **In his opinion, the C.O.D., not the Act, had offended against Section 92 of the Constitution.** He did not base that opinion on the position of the comma after the word "only" in Section 7, but on the fact that there was nothing in the Act, from beginning to end, that necessarily referred to other States or to interstate commerce. Still, he was content to rest his judgment on the ground that the conduct of the committee was not warranted even by the State Act.

His Honour said that he would favour an amended declaration as proposed by Mr. Justice Isaacs. So far as the growers were

**prevented by the C.O.D.**

from selling and consigning to whom they liked, and so far as the produce agents were prevented by the defendant from carrying on their legitimate business, relief should be granted; but the growers and agents, as such, had no right to prevent the committee from selling fruit directly or by agents. "The plaintiffs," he said, "in the capacity in which they sue, have no cause of action. The committee has no right to sell; but the growers and the produce agents as such, cannot complain. Any dealer may lose business when a formidable rival sets up business in the same street, but it is loss without wrongdoing. If trustees, in breach of their trust, carry on business, a stranger to the trust cannot complain. But the beneficiaries can complain."

**Other Judgments.**

In the opinion of Mr. Justice Rich, the word "control" was insufficient to include the monopoly claimed by the C.O.D. The natural meaning of the word was not large enough to embrace such an unusual and far-reaching interference with private rights. But no case had been made out for a declaration or injunction against the C.O.D. from carrying on business that was apart from obstruction to the respondents' business.

**"The Committee has not, in my opinion, the powers which it claims," said Mr. Justice Stark. "It is a sound rule of construction that the rights of citizens are not to be destroyed or taken away unless you have plain words which indicate that such was the intention of the Legislature.**

"The words 'take control of marketing,' point, I think, to supervision of the operations rather than to the conduct of the operations themselves. I have not omitted to consider Section 6 (5), but whatever it authorises, still its provisions fall far short of what would be expedient and even necessary for the purposes I have indicated. This view disposes of the whole case, and I say nothing as to the provisions of S. 92, of the Constitution, or its effect upon the State Act."

Mr. A. D. M'Gill (instructed by Mr. G. S. Webb, and Messrs. M'Nab, Dowling, and Wilson) appeared for the appellants (the C.O.D.); Mr. C. Stumm, K.C., with him Mr. A. D. Graham (instructed by Messrs. Atthow and Atthow) for the respondents (the plaintiffs in the original action).

## EFFECT OF THE JUDGMENT.

### Queensland Press Comments.

Without doubt this legal case has attracted notice throughout Australia as well as in other parts of the world. It is of interest, therefore, to quote from an editorial in a daily newspaper published in Brisbane (The "Courier"), giving the necessary local color to its relevant remarks. Thus:

From the point of view of trade and commerce few more important judgments have been given by the High Court than that which was delivered in Brisbane on June 1st, when the Court unanimously declared that the Committee of Direction of Fruit Marketing is not entitled to prohibit, prevent, or hinder growers from sending their fruit to private agents, or agents from receiving and selling it, or to seize or to divert fruit that is consigned to any agent. In this instance there is no diversion of opinion.

Mr. Justice Macnaughton, in his original judgment, from which the C.O.D. appealed to the High Court, held that the Committee of Direction had not the powers under the State Act which it claimed, and in addition to his general declaration he issued an injunction against the Committee restraining it from selling Queensland-grown fruit. That view was endorsed by Mr. Justice Higgins, who held that the Act does not give the Committee any right even to purchase or to sell fruit. The Court, however, has not gone so far as that.

The Court was concerned entirely with two important points: (1) that relating to the freedom of interstate trade, and (2) that relating to the liberty of growers to sell their fruit to whom they like.

So far as the interstate prohibition is concerned there has never been any doubt by those who understand the Federal Constitution. Many months ago we pointed out that the effect of Section 92 of the Constitution is that every owner of goods or produce shall be at liberty to make such contracts with interstate agents as he thinks fit, without any interference by any person or any Government, excepting when such is expropriated by a State under its powers of eminent domain, such as might obtain in time of war.

The High Court, on several occasions, has laid it down that interstate trade is free from Governmental control by any Governmental authority, and that the owner shall be absolutely unfettered. As we have said, there has never been any doubt about that interpretation by those who understand the meaning of that important section which stipulates that "trade, commerce, and intercourse among the States, whether by means of internal carriage or ocean navigation, shall be absolutely free."

That section makes the Commonwealth of Australia one indivisible country for the purposes of commerce and intercourse between Australians; and no Government or Parliament, either by Act or regulation, is entitled to impair that fundamental provision. It is exceedingly unfortunate, however, that it becomes necessary at times for citizens to assert their rights and privileges and to invite the supreme legal authority of the Commonwealth to maintain what every schoolboy ought to know.

The High Court, however, went very much further than ruling that there should be no interference with interstate trade. Its judgment prevents the C.O.D. from interfering with the rights of growers and agents in this State. If the C.O.D. is not a monopoly it has no right to interfere with either grower or agent; if it is a monopoly controlling the whole of the trade then it is a direct contravention of Section 92 of the Federal Constitution, and the Act is ultra vires. That is the view that we took when the C.O.D. first issued its circular preventing growers from sending their fruit to whom they wished, and the agents from selling it. In effect that contention has been entirely endorsed by the judgment of the Court and especially by the judgment that was delivered by Mr. Justice Isaacs.

The really important part of the judgment, from the point of view of local trade, is that the Act itself does not authorise the Committee of Direction to interfere with the rights of either growers or agents. The Government, of course, can amend its Act so far as local trading is concerned; but that amendment must not violate Section 92 of the Federal Constitution.

**If the Government wishes to prevent growers from selling their produce locally, as they wish, then its Act must say so in explicit terms. It seems hardly likely that any Government would contemplate doing such a thing.**

The C.O.D has a big field for its operations, especially for its organisation, and in that legitimate field it has abundance of scope for useful and valuable work. Everything that the Committee of Direction can do to provide an efficient system of co-operation to enable growers to solve their marketing difficulties will be of great national value, and will win popular applause.

That the C.O.D. has done useful work is a statement that nobody who knows the nature of its operations is likely to challenge. As production increases its work will become increasingly useful. It is unfortunate that in its zeal to carry on its work it overstepped the bounds of the power conferred on it by Parliament. It still has those powers. It has been stripped only of those powers which it had no right to arrogate to itself; and in the interests of agriculture and of the State it is to be hoped that both the Government and the Committee itself will be content to work within the very liberal powers that were conferred on it.

H. M.
WADE
& CO.
*Fruit Merchants*
Prompt Advices of Sales
— CHEQUES WEEKLY —
471 FLINDERS LANE
MELBOURNE
And WESTERN MARKET.

LEMONS.
We are the Largest Buyers in Australia.
PROMPT SETTLEMENTS
C. M. BROOKE & SONS
73 Whiteman St., South Melbourne, Vic.

# New South Wales

## Federation's Annual Conference

Reports and Seasonable Cultural Notes. Manurial Tests.

THE Annual Conference of the N.S.W. Fruitgrowers' Federation was held at Sydney on 2nd and 3rd June. The President (General Heane) occupied the chair. There were also present:—

**Board of Management.**—Messrs. B. W. King (Hawkesbury River), H. S. Wark (Bathurst), F. A. Nicolson (Glenorie), T. R. Coulson (Gosford, G. H. Wilson (Wilberforce), T. W. McMahon (Kurrajong), H. V. Smith, N. H. Case (Batlow), W. J. Nancarrow (Orange), F. Brooks (Millthorpe), H. G. Such (Griffith), J. W. Blick (C.F.S.).

**Representatives of Affiliated Organisations.**—Messrs. R. W. Peacock, H. G. Edgell (Bathurst), J. Neil, G. W. Hitchcock (Glenorie), T. H. Fiddick (Millthorpe), J. Heckley (Marroota), R. H. Greene, L. Thompson (Orange), F. Dunn, W. F. Cates (Pennant Hills), Mrs. Piddington (Running Stream), Messrs. A. Smith, Jr., W. J. Black (Central Mangrove Citrus Packing House Ltd.), E. L. Archer (N.S.W. Central Citrus Association Ltd.), A. J. Arnot, H. G. Ward (Batlow Packing House Ltd.), J. T. Power (Kurrajong F.G.A.).

### Organisation.

The Conference decided that, pending the proper organisation of the growers of the State, it is imperative that the N.S.W. State Fruit Advisory Board should be placed on a sound financial basis, and that the method of appointing its personnel be revised by calling for nominations as follows: N.S.W. Central Citrus Association, 1 (Citrus); Tweed Fruitgrowers' Association, 1 (Banana); Wentworth Settlers' Association, 1 (dried fruit); Irrigation Areas, 1 (canned fruit); Deciduous Growers' Association, 1 representative; Fruitgrowers' Federation, 3 representatives to fill positions not provided for from the foregoing nominations.

The re-organisation of the Department of Agriculture into sections representing various classes of fruit, was approved, also that the Government should provide the necessary increased funds.

### Finance.

It was decided that the subscription be increased to 10/- for Associations other than Packing Houses, but with a maximum of £40, but this was subsequently rescinded.

Mr. Edgell, on behalf of the Bathurst Association, announced that this Association was donating £25 to the funds of the Federation. Mr. Wark announced that Bathurst, besides the donation of £25, was also voluntarily increasing its fees to 10/-.

Mr. Thompson, on behalf of the Orange Association, donated £25, and Mr. A. J. Arnot announced his intention of donating £25, and pressed strongly for the concentration by the Board on the question of the improvement of marketing conditions. Mr. Brooks stated his intention of donating £5, and a further £5 on behalf of the Millthorpe Association. Mrs. Piddington donated £5 on behalf of Running Stream, and Mr. Hitchcock £5 on behalf of Glenorie. Mr. Power, £1 on behalf of Kurrajong.

### Interstate Trade.

A motion was carried that the Department of Agriculture should endeavour to secure a variation of the regulations fixing fruit case sizes in so far as they prohibited the export of fruit from N.S.W. to Victoria. This refers to a regulation issued in Victoria in April setting out the type of case in which the fruit from outside the States should be packed, the case decided on being one not in use in New South Wales.

Mr. Such reported that the Victorian regulations appeared to allow only of fruit being sent to Victoria in "export" and "dump" cases, and that "Canadian" and "Gin" cases were not allowed to be used.

### Grading Regulations.

Mr. N. H. Case urged that as the proposed grading resolutions governing Apples and Pears sold in the Sydney markets, and adopted by the N.S.W. Fruitgrowers' Conference, the Fruitgrowers' Fed. of N.S.W., and the N.S.W. State Fruit Advisory Board, were vital to the existence of the industry, the Conference should ask for their immediate adoption. Mr. Case then moved that while the Conference deplores the delay in the introduction of the regulations recommended by the Federation, it requests the immediate introduction of the Federal grading regulations until such time as the present agreement with the other States expires. (Adopted.)

### Fruit Pests and Diseases.

The following resolutions were agreed to:—That the Government be requested to institute a thorough scientific investigation into brown spot and red scale of Citrus and Passions, and black aphis on Cherries; that the Department of Agriculture be requested to make it compulsory for growers to set fruit fly traps and baits in those districts where the fly is known to exist; and that this Conference favors more stringent applications of fruit fly regulations in regard to the picking up and destroying of fallen fruits.

It was decided to urge the total prohibition of citrus fruits and trees except for propagation, under strict quarantine, owing to the introduction of further diseases.

The Chairman announced that the Agricultural Department desired the opinion of the Conference on the subject of the prohibition of fruit from fly-infested districts to Bathurst and other places where the fly does not exist. The Central Citrus Association stated that there was no danger at this time of the year of the fly propagating, and suggested the embargo be removed until November; also that if a citrus or other orchard had a clean certificate, it should be safe to permit fruit from that orchard to pass into the forbidden area. At present a grower was compelled to consign his fruit first to Sydney for inspection before it could be sent on.

It was agreed that the department be advised that this Conference suggests that fruit accompanied by a clean certificate or from clean orchards be allowed to be sent direct from the railway station without further inspection.

### Orchard Registration Fee.

It was decided to request the Minister for Agriculture to allot 50 per cent. of the nett proceeds of the Orchard Registration fees to the Federation. A suggestion that the fee be fixed at 6d. per acre on orchards under five years, and 1/- per acre on orchards over five years, was referred to the Board.

Research stations were requested for plant breeding and the testing of fruit tree stocks, also for research work into pest control.

### Trees True to Name.

Several delegates stated that amongst the trees supplied from nurserymen, there were many not true to name, the mistake only being discovered after several years. A motion was carried in favor of nurserymen being compelled to set apart an area for propagation purposes with true-to-name varieties of the trees listed in their catalogues.

### Fruit Agents.

A resolution was adopted that fruit commission agents be registered, also that their books be open for inspection.

The executive was asked to compile a list of endorsed agents to whom fruit might be safely consigned.

### Orchard Inspection.

The Conference affirmed the necessity for a reduction of the areas over which orchard inspectors should have authority, and more inspectors appointed so that the work of inspection could be more effectively carried out.

### Railway Matters.

Improvements were requested in relation to the unloading of fruit at Darling Harbor and the supervision of carters.

**Fruit Barrows.**

The Conference resolved to request the Traffic Department to allow additional licensed barrow-men on the streets, believing that these men assisted in relieving gluts and disposed of large quantities of fruit.

**Fruit Juices.**

A resolution was adopted that the Conference protests against the continued manufacture of synthetic fruit juice compounds, and asks for an amendment of the Pure Food Act on similar lines as adopted by the 1924 Conference. It was stated that manufacturers of lemon squash juices frequently used 50 per cent. of citric acid and sugar in their preparations, believing that the manufacture of pure juice was not commercially practicable. The Conference considered at least 75 per cent. fruit juice should be compulsory.

**Import Duty.**

On the motion of Mr. Wark, it was decided that the Conference protests against any proposal to increase the import duty on woodwool, fruit-case timber imported in shooks, or any other item required by orchardists for the better packing of fruit. Mr. Wark said that the Canadian fruit case, which was springy at the top and bottom, was the best of its kind for fruit packing, as the contents reached their destination in better condition than when packed in Australian wood cases. The latter were rigid, and caused the fruit to bruise.

**Railway Matters.**

It was decided to request a reduction of the charge for tarpaulins from £1 to 3/6, and for the freight on new cases to be reduced to the rate ruling for second-hand cases: that truck lots be charged for in accordance with the rate for the truck ordered.

**Community Settlement and Credit Act.**

It was resolved to endeavour to secure an amendment of the Co-operation Community Settlement Credit Act of 1923 to allow of the increasing of the shareholding limitation from £1,000 to £3,000.

**Fruit to New Zealand.**

On the motion of Messrs. Blick and Nicolson, it was decided that the Department of Agriculture be requested to make representations to the New Zealand Government with a view to having the procedure relative to infected consignments relaxed to allow only the infected portion of a consignment being destroyed, and the good fruit allowed to be sold or returned according to the wishes of the consignor.

**Advertising.**

Conference decided that a publicity campaign, to increase fruit consumption, was desirable, and decided to ask the railway authorities to advertise fruit in their carriages.

**Red Scale.**

A letter from the Department of Agriculture was read informing the Federation that a request has been received from the Curlwaa Fruitgrowers' Association inquiring from the Department as to the prospects of obtaining assistance to deal with "Red Scale" of citrus by obtaining the supply of plant at cost price, with repayments spread over a term of years, and asking for an expression of opinion as to whether fees collected from the Registration of Orchards should be used for this purpose.

Conference affirmed that the registration fees should not be used for such purpose.

**Election of Officers.**

The following officers were elected:

**President,** General J. Heane (West Pennant Hills).

**Board of Management.**—Messrs. N. H. Case, A. J. Arnot (Batlow), H. S. Wark (Bathurst), F. Brooks (Millthorpe), L. Thompson (Orange), F. A. Nicolson (Glenorie), H. G. Such (Griffith), G. H. Wilson (Wilberforce), J. W. Blick (C.F.S.), and one other to be appointed by the N.S.W. Central Citrus Association Ltd.

**J. G. MUMFORD**
(Established 1906)
**Fruit & Vegetable Salesman**
Account Sales Posted Daily

**APPLE EXPORTER**

"Fruit Exchange,"
449-451 FLINDERS LANE
Branches { Western Market / Victoria Markets
MELBOURNE

*Reference—Satisfied Growers in all States.*

## MURRUMBIDGEE IRRIGATION AREAS.

**Leeton** (18/7/25).

**Apricots and Free Stone Peaches.**—Some feeling of unrest pervades the growers on account of the probability of the Government cannery not taking in all the available stocks of these fruits for treatment next season.

It appears that last season the cannery received one thousand tons of Apricots, and there is at present in stock (processed) about a two years' supply, according to the usual demand. In the event of the cannery finally deciding not to accept Apricots or freestone Peaches, the Irrigation Commission has wisely decided to offer financial assistance to growers (who would be compelled to dry these fruits) for the purchase of drying trays. The sooner a decision is arrived at by the Commission, the better, as settlers will know how they stand, especially as it is well known that the ways of the Government in commercial undertakings are most procrastinating. The remarks made by me in a previous issue on a publicity campaign would relieve the whole difficulty if the Irrigation Commission would only make some practical move in this direction. Their officers know that this move is absolutely necessary. Why, therefore, delay?

**Cling Peaches and Other Fruits.**—The Irrigation Commission has decided in nice time to give the growers the same price per ton for cannery supplies for next season as last season.

**Cannery Products.**—A criticism of the samples sent me may be briefly summed up as follows:—

Canned Peaches would be perfect with a slightly thicker syrup.

The jams leave nothing to be desired, as now turned out, every one of each class possessing the ideal consistency.

Sauces. — The Tomato sauce samples that have been distributed have resulted in high praise by the recipients. I freely endorse their opinion. This commodity should have a big sale, unless the cannery continues to hide its light under a bush.

It is time there was an alteration in the style of label for the Leeton cannery's canned fruits and other products. The idea of a

**bird as a trade mark**

for fruit is more comical than otherwise. The Zoo or Museum is more the place to advertise our native fliers. An idea has been mooted of having a label surrounded with the British and Dominion flags (inter alia), which has something of common sense to commend it.

**The starling** is still receiving attention by the Irrigation Commission, and it has decided to make further experiments with the electrical device in order to rid the Areas of this fruit pest.

**Citrus.**—There is a good yield of fine fruit in all classes of citrus grown here, viz., the Washington Navel, Valencia, Mediterranean Sweet and Joppa Oranges and Lisbon Lemons. For plantings of citrus, the Irrigation Commission has decided to charge £7 per 100 for caliper measurement of 5/16in. diameter, with 2in. above the bud for yearling stock. This price is considered reasonable enough, but, after all, the actual nature of the stock to be planted is the feature. In the latter case, on the Murray and other places, failures have provided a valuable object lesson.

**Second-hand Cases and Bags.**—It has been decided by the Irrigation Commission and the Settlers' Board that, provided the responsible Associations and the Co-operative Companies agreed, it would be prepared to adopt the following:—

That the general introduction of second-hand cases to the M.I. Areas be not permitted for the present.

That second-hand bags be allowed to be introduced, subject to their being accompanied by a fumigation certificate.

That cases which have been used for packing canned fruit and jam be allowed to be introduced as heretofore.

That new cases bearing a distinguishing mark, which have been used once for the transport of canned fruit be allowed to be returned direct from the jam factories to the co-operative companies from which canned fruit has been forwarded on the condition that such packages are kept separate from any market or other fruit-carrying packages whilst in the factories' stores in Sydney.

## MANURING VINEYARDS AND CITRUS GROVES.

**Manurial Tests.**—I have now received the results of a test at Yenda (on the M.I. Areas) by Mr. G. W.

'Phone Central 8479

F. W. Vear

*Fruit Importer and Exporter*

COMMISSION AGENT

49 WILLIAM ST., MELBOURNE, VIC.

**Solicits consignments of APPLES, ORANGES, BANANAS, PINES and all other fruits.**

**Account sales with cheque daily.**

Beverley, the Chief Agricultural Instructor in this district. The results are given to me in a letter, and I cannot do better than quote the following extract from it:—

Date March 27th, 1925.

**No. 1.—40 Sultana Vines** (in 4th year).—No manure. Gave a Beaume test of 14 degs., and yielded 1,097 lbs. weight of fresh Grapes, of fine size and quality.

**No. 2.—40 Sultana Vines.**—Received 2 cwt. superphosphate per acre (at rate of). Beaume test 15 degs., and yielded 1,221 lbs. Grapes.

**No. 3.—40 Sultana Vines.**—Received at rate of 4 cwt. of super per acre. Beaume test only 13 degs., but total weight was 1,412 lbs Grapes.

Note that in No. 3 test, although the crop was far heavier the sugar test was **1 deg. less,** and the size of the fruit just as good, yet the foliage was far heavier, and hence the fruit was not so ripe, but I think that if the fruit had been left on the vines for another 10 days the sugar test would have been at least 16 degs. with great increase in bulk.

The small cost of the manure would far more than repay the outlay, and pay a very handsome interest beside.

The whole of this soil shows a deficiency in phosphoric acid, but is probably rich in potash salts, which, however, are not in an available form until the use of gypsum releases them.

The use of gypsum on the Murrumbidgee Irrigation Areas is now very generally acknowledged, and this material, which cannot really be classed as a manure in itself, is a valuable releaser of the other salts which the soil contains, particularly potash.

In the manurial tests carried out for the Department of Agriculture on a farm at Leeton, the use of gypsum, although making a vast difference in the texture of the soil when an application of 1 ton per acre was used, did not make a bit of difference in the fruit crop, either in quality or quantity, but when the addition of manure was given in the following proportions per acre:—

318 lbs. superphosphate.
87 lbs. bonedust.
37 lbs. sulp. of ammonia.

there was a most marked increase in quality and quantity, the returns increasing from 15 cases of fruit from 11 trees to 39 cases.

Strange to say, the addition of 46 lbs. of sulph. of potash to this mixture did not show any addition in yield, but was nine cases less than on those manured as stated, but the colour and quality of the fruit were rather better, the fruit being larger and more juicy, but the difference was so slight that it would not warrant the use of the higher-priced manure at least for a year or two. Probably the use of the gypsum, which was given to the whole area under test, check rows as well, liberated the potash salts in the soil, and thus rendered unnecessary the addition of sulp. of potash.

Not only on vines and trees has the addition of phosphate shown a most decidedly beneficial effect, but on Lucerne crops as well, and where superphosphate has been applied on alternate "bays" of the Lucerne patch in question, the growth and quality are most marked.

On young Citrus trees that have received only the addition of super. at the rate of 1 cwt. per acre (90 trees to the acre) the development is most marked, and they stand out among those trees unmanured.

I have found from many years of experience on the Murray Settlements that by

**manuring Citrus trees**

from a year after planting, the trees are healthier, throw a better type of wood, and ultimately come into bearing earlier than where no manure is used.

Where the soil is deficient in phosphoric acid salts, but is rich in nitrogen, as is the case on the Murrumbidgee Areas, the trees and vines make very rapid and heavy wood growth, and this is of a sappy nature. The use of phosphatic manures in the early stage would probably cause a better type of wood to be thrown out, shorter in the nodes, in the case of vines, and of a better type to fruit.

Anyway from experiments I have conducted here during the time I have been on the Area, I would state emphatically that it pays to use a phosphatic manure from the start, i.e., a year after the trees or vines are planted in small quantities, and the use of same will pay a very handsome interest on the outlay, and permanently establish the fruit properties of both trees and vines, if other things, such as bud and stock selection, have been studied.

## TWEED BANANA GROWERS.

The annual meeting of the Tweed Fruitgrowers' Co-operative Co. Ltd. was held on June 27th, Mr. Thos. Brooks, Chairman of Directors, presiding.

The annual report stated that notwithstanding the ravages of bunchy top the production of Bananas on the Tweed during the past 12 months had been greater than was anticipated, and events so far had warranted the decision of the shareholders to continue the operations of the company.

During the year 55,591 cases of Bananas, 3,393 bags Beans and Peas, and 6,069 cases of Passion-fruit, Tomatoes, etc., were forwarded by special trains to the southern markets. During the same period 12,707 cases of Bananas were received for direct sale and realised £11,819, an average of 18/7 per case. The balance-sheet showed that company's assets amounted to £2,382/13/-, the reserve being £898/8/9, Messrs. J. Bower, Thos. Brooks, P. Steer, H. H. Williams, and T. W. D'Aran were elected directors.

Mr. Thos. Brooks was re-elected chairman, and an invitation was extended to Mr. Thomas Pilgrim to accept a seat on the board as a representative of the Lower Tweed.

## APRICOT TREES FOR SALE.

**Special Offer by N.S.W. Irrigation Commission.**

The attention of persons interested is directed to the advertisement in this issue stating that the Water Conservation and Irrigation Commission has at its nursery at Griffith, N.S.W., quantities of Trevatt Apricot trees, which are available for disposal. Quotes will be supplied on applications being addressed—Manager, Mirrool Irrigation Area, Griffith, N.S.W., and reduced quotes will be given for large orders.




### The "Brown Heart" Decision.

THE verdict in favor of the shipping company in regard to the huge losses in the "Northumberland's" cargo of 116,000 cases in 1921 will come as a surprise to many.

The judge accepted the view that the Apples suffered from internal browning, due to inherent defects. The plaintiffs said the trouble was "brown heart," due to faulty stowage and ventilation.

It is evident the subject was exhaustively studied, as the hearing lasted ten days. A review of the evidence would be extremely interesting here. Growers and others interested in Australia and New Zealand believed that the plaintiff's case for "brown heart" would be established, in view of the very interesting and valuable bulletins issued on the subject following the visits of the Cambridge scientists.

It is quite possible that an appeal will be lodged against the verdict.

One interesting fact emerges, according to our reading of the cabled report of the judge's finding, which is that if "brown heart" could have been proved, and that there was insufficient ventilation to get rid of an excess of carbon dioxide beyond a certain concentration, the shipping company would have been liable. Previously it seemed to be tacitly understood that the terms under which the fruit was carried by the shipping company prevented such a claim as the foregoing from being effectively contested at law.

Apart from the legal aspect of the case, it is a cause for congratulation that "brown heart" is now sufficiently understood as to prevent its recurrence in the future.

The need for further scientific research into fruit storage and transport problems is the more prominently thrown into relief. It is high time that the "rule of thumb" methods should cease, and that fruit shipments should be conducted on a known scientific basis.

### Orchard Tax.

THE request of the Victorian Fruitgrowers' Central Association for the imposition of a compulsory Orchard Registration Fee has left the Department and the Ministry in a quandary. There are conflicting views on this subject. To solve the problem it is proposed to give legislative authority to the Department to collect a registration fee, and for the disposal of the funds to be in the hands of the Minister.

It may be worth noting that the idea of the "tax" or "fee" came from the Australian Conference of Fruitgrowers, after hearing reports of the operations of the Orchard Act in New Zealand. Since then much water has flowed under the bridge. The Apple growers, the prime movers in the matter then, have since largely merged into the Cool Stores Association, besides having developed a healthy export trade. Many growers, keen on the orchard tax ten years ago, are opposed to it to-day.

Then, again, it was hoped that the result of securing funds by means of the "registration fee," would be the formation of the Victorian Fruitgrowers' Federation Ltd., or some such body, with a comprehensive outlook, exactly on the lines of the New Zealand Fruitgrowers' Federation Ltd.

Under the Ministry's proposals this is not to be, but instead a difficult situation will be created for the Department in having to administer funds, or return same equitably to growers. A clash is inevitable between some of the established Associations.

Under all the circumstances, it would not be surprising if the Ministry deferred fathering the proposed Bill until it had a clearer understanding of the desires of the growers in this matter.

## ANSWERS TO CORRESPONDENTS.

### Graders for Gooseberries.

**The Editor, "Fruit World."**

Sir,—Your readers who are growers of Gooseberries ardently wish to lesson their labor and obtain a better price. The "Ellis" Grader is quite suitable also for this class of fruit. Although up to the present, growers are using it for every other class of fruit, it has not yet been tried on Gooseberries, but there is no reason why it should not be just the machine our Gooseberry growers are looking for.

We are willing to send one to a grower and for him to give it a practical trial, when he will be able to report to your columns the result of his experiment.—The Ellis Grader Co., Merrigum, Vic.

**To Pollinate Ohanez Grapes.**—A reader at Leeton, N.S.W. writes:—I would be grateful if you would enlighten me on the following point:—I have seven rows of Ohanez which adjoin a 3-acre patch of Sultanas. Is it necessary to interplant some other variety of Grape to ensure successful pollinisation? If so, would it suffice to merely plant up a dozen or so "misses" (which I expect I shall have as I planted up only last spring)?

**Answer** (by H. L. Manuel, N.S.W. Government Viticulturist),—No. But a special system of pruning is necessary,—leaving lateral growth as rods to procure a crop.

**Answer** (by F. de Castella, Victorian Government Viticulturist).—Though not altogether self sterile, Ohanez benefits greatly from interpollination, the setting of the fruit being much improved thereby. For this purpose, Sultana is of little use, as it blossoms too early. Gordo Blanco seems quite satisfactory—likewise Wortley Hall, which provides pollen, in good condition, over a long period. Filling misses with the pollinator should do. If the gaps are not numerous enough, a few of the weaker vines could be sacrificed. It is difficult to definitely fix the number of such vines to interplant say, every 6th vine in every 4th row should suffice.

**Answer** (by A. V. Lyon, Scientist, Mildura).—Interplanting for pollination will be quite unnecessary. The Ohanez is successfully grown at Merbein, in quantities up to 20 rows adjoining other varieties, without any interplanting within the Ohanez area.

**Trouble with Citrus.**—A Leeton (N.S.W.) subscriber writes:—I have a lot of citrus trees going yellow. Can you tell me what I should do with them?

**Answer** (By W. J. Monfries, Leeton).—Your subscriber from Leeton who asks why his Citrus trees should go very yellow might supply further particulars,—I might say that at Leeton and Griffith such a result has been brought about on the light sandy soils by seepage from channels.

If the trees have not got a proper drainage, from other cause than the seepage just mentioned, this might be the answer to the question.

Furthermore the type of soil on which the Citrus exists might be too heavy, as is the case on many orchards on the M.I. areas.

If your subscriber sends a note to Mr. G. W. Beverley, Chief Agricultural Instructor, Leeton, an inspection of the trees will be made by him or one of his officers. Your subscriber can absolutely rely on Mr. Beverley's advice. He has had many years practical experience as Manager of Citrus orchards.

**Orange Scale.**—What would you recommend for scale on Orange trees at this time of the year?

**Answer** (by C. G. Savage, Deputy Horticultural Instructor, South Australia).—For red scale of the Orange, fumigation with hydrocyanic acid gas is the only method that is found effective during the winter months. The scale is not active during the winter, and the insects being protected by a thick covering or scale, are able to withstand oil sprays. Fumigation is the best method of dealing with the scale throughout the year.

Spraying with kerosene emulsion or Red Oil emulsions during the summer months, when the insects are active, and when the scale coverings are comparatively soft and thin, will give a certain amount of satisfaction. With black scale, provided that the spraying is done thoroughly during the summer, most of the scale will be destroyed. Spraying should not be done during very hot weather. See that the oil is properly emulsified, free oil will spot the fruit and defoliate the tree.

**Spraying Prunes.**—When is the best time to spray Prunes with Lime-Sulphur?

**Answer** (by C. G. Savage).—No indication is given as to what disease the grower wishes to combat. For red spider (Bryobia mite) spray just prior to blossoming time, say, a fortnight before, with Lime-Sulphur at the recommended winter strength, then again after the fruit has set, reducing the strength of the mixture to that recommended for summer use.

For shot hole the best season to spray is in the autumn; this can be followed by a spray application just prior to bud burst.

---

**Spraying Apricots and Peaches.**—What strength of spray would you recommend to use for Apricot and Peach trees?

**Answer** (by C. G. Savage).—I presume the enquirer wishes to combat the shot hole of the Apricot and curl leaf of the Peach fungi. The standard treatment for both these diseases is a bluestone mixture, either Burgundy or Bordeaux. Burgundy is made with 6 lbs. bluestone, 9 lbs. washing soda and 40 gallons water. Bordeaux mixture, 6 lbs. bluestone, 4 lbs. fresh lime, and 40 gallons of water.

For shot hole of the Apricot spray in early autumn, again in spring just prior to the opening of the buds, and again after the fruit has set, should weather conditions prove favorable during the spring months for the growth of the fungus.

For curl leaf of the Peach spray about 10 to 14 days prior to the opening of the flower buds, and give a second application just when the pink tips of the flowers are discernible through the bud scales.

---

Replies to the foregoing are also to hand from Mr. J. M. Ward, Superintendent of Horticulture, Vic., thus:—

**Orange Scale.**

(1) Experiences go to show that the most efficacious method of combating red scale on Orange trees is to fumigate the trees with calcium cyanide or potassium cyanide. This should be carried out during the summer or autumn months.

**Spraying Prunes.**

(2) This can only be answered after receiving a reply as to what the Prunes are to be sprayed for. For general purposes, it is recommended to spray with lime-sulphur at a strength of 1-9, just as the buds are swelling in the spring.

**Spraying Apricots and Peaches.**

(3) Again, one may ask: What are the trees to be sprayed for? If Apricots are to be treated for shot-hole fungus, they should receive an autumn spraying with Bordeaux mixture at 6-4-40 strength, followed with a second application at the same strength during early spring. Before replying to the query regarding Peaches, I desire to know whether the spray is for insect pests or fungus, and what kind.


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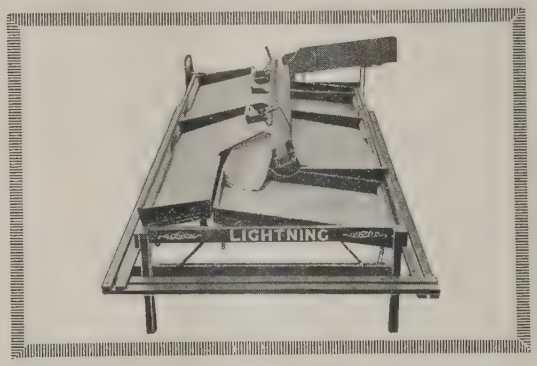



*Illustration of Model 5. Packing space, 80 sq. feet*
*The case rails as shown hold 20 cases, end to end.*

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The Grader which gives 10 sizes on each side.

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## Western Australia.

### CULTURAL ADVICE FOR AUGUST.

**(By Geo. Wickens, Department of Agriculture.)**

**Deciduous and Citrus Trees.**

**Pruning and planting** of deciduous trees should be completed by the end of this month, and wherever the soil will work up without being puddled or rendered sticky, spring ploughing should be pushed on with.

Obtain scions for **grafting** purposes from bearing trees, while they are dormant, during the early part of this month, and bury same in soil in a cool place to prevent the buds from bursting. Scions so treated will keep in perfect condition for grafting until the end of September.

Apply the second spray for San Jose Scale towards the end of this month, taking advantage of any fine weather which may be experienced. Where San Jose Scale and Woolly Aphis require treatment in the same orchard, use Black Leaf 40 and Lime-Sulphur.

Continue the search for, and destruction of, citrus fruits infested with **fruit fly**, and carefully examine ripening Loquats for traces of the pest. The weather in this month is usually too unsettled to allow of much success attending an application of poison bait to the trees, but should citrus fruits or Loquats be found to be infested, bait should be applied on the first fine day afterwards.

Orange Aphis was very prevalent last year; in fact, it was present in many places in an unusual degree right through the summer. It will again commence to show up at the end of this month, and should be treated with Black Leaf 40 and soap, using 1 lb. of the former to 3 lbs. of the latter in 80 gallons of water.

**Vineyard Notes.**

The **pruning** of all vines should be completed before the end of this month, as well as the tying down of rods of long-pruned vines; also removal of all prunings, completion of first ploughing and hoeing, so that the land is in good tilth before the buds burst.

**Swabbing and Spraying.**—Black Spot (Anthracnose).—Whenever this disease has become established, or where any signs of it were noticed last spring or summer, swabbing will be essential, and commercial growers who desire clean crops of fruit fully realise the grave danger of neglecting swabbing or spraying.

The **Sultana** is most susceptible to this disease, while several varieties of table Grapes are often very severely attacked. A two-fold treatment is generally adopted, consisting firstly of the winter swab or spraying, to be completed before the buds begin to swell, which is designed to destroy the wintering forms of the fungus, and, secondly, spring and summer spraying with copper mixture to prevent the spread of any fungus resulting from the development of any wintering form which may have escaped destruction by swabbing.

The following is a formula which has proved satisfactory as a winter swab or spray, to be applied just before bursting of the buds:—Iron sulphate, 35 lbs.; sulphuric acid, 8 lbs.; water, 10 gallons; or a very strong Bordeaux mixture, as follows:—Bluestone, 20 lbs.; lime, 20 lbs.; water, 40 gallons. Success has been met with this mixture in the Swan vineyards, and growers there favor this mixture in preference to the iron sulphate spray.

Given suitable weather conditions, fresh infection will, no doubt, occur, and this must be combated with a spring treatment of copper mixture, made up as follows:—Copper sulphate, 6 lbs.; fresh quicklime, 4 lbs.; water, 40 gallons.

The planting of young vines should be completed this month.—W.A. "Journal of Agriculture."

## SATISFACTORY FRUIT SHIPMENTS.

IN commenting on the export of fresh fruit from Western Australia for the year ending 30th June, 1925, the Hon. M. F. Troy M.L.A., Minister for Agriculture, stated that the season has been a most successful one as to quantity shipped and prices which have been received for Apples in the overseas markets. The season under review ranks next in quantity of cases exported to the record year of 1923, and is nearly 100,000 cases in excess of the export for the year ending 30th June, 1924. The actual figures are as follow:—

| | |
|---|---|
| 30th June, 1925 .. .. .. | 403,283½ |
| 30th June, 1924 .. .. .. | 318,887½ |
| 30th June, 1923 .. .. .. | 407,085 |

It will be understood in the figures quoted above that parts of two seasons—the last half of one year and the first half of the next—are included in each return: the export in the last half of each year, so far as the English market is concerned is confined mainly to Oranges, but practically throughout the year, from early March to October, Apples are exported to Java and Singapore.

In the quantity given above as being exported to the 30th June, 1925, 23,042 cases were sent during the half year ending 31st December, 1924, so it will be seen that the major portion of the export for the total period was made up of fruit ripening in 1925.

The markets to which consignments were sent comprised London, Liverpool, Hull, Port Said, Durban, Capetown, Hamburg, Stockholm, Gothenberg, Cologne, Copenhagen, Colombo, Singapore, Java, Samarang, Sourabaya, Calcutta, Mauritius, Tavoy and Banjoewangi, and the quantity exported consisted of:—

| | | |
|---|---|---|
| Apples .. .. .. .. | 347,342 | cases. |
| Grapes .. .. .. .. | 25,974 | " |
| Pears .. .. .. .. | 16,886¾ | " |
| Oranges .. .. .. | 12,580¼ | " |
| Lemons .. .. .. .. | 242¾ | " |
| Nectarines .. .. .. | 97 | " |
| Peaches .. .. .. | 91 | " |
| Quinces .. .. .. | 26 | " |
| Passion Fruit .. .. | 23 | " |
| Plums .. .. .. .. | 20 | " |

Of the foregoing 255,012 cases were shipped at Fremantle; 117,720½ cases at Albany; 30,551 cases at Bunbury.

During 1925 from 23rd February to the 11th June, 22 boats loaded fruit at Fremantle, 8 at Albany and 2 at Bunbury, for markets in Great Britain and Europe. The bulk of the shipments were sent to England, only a few, about 12,000 cases reaching Hamburg, Cologne, Gothenberg, Stockholm and Copenhagen. Four boats called at both Fremantle and Albany, so there were actually 28 individual ships engaged in transporting fruit from Western Australia to European markets during the period named.

## THE SEASON REVIEWED.

### Dried Fruit Problems.

**Perth**, July 28th. A correspondent writes:—The past season has not been a satisfactory one for **Grape production** in Western Australia. All round the harvest was smaller than usual. The summer rains affected the keeping qualities of the Grapes, and prices in England have not been as satisfactory as on previous occasions.

As regards **dried fruits**, there are very great problems which are confronting Western Australian growers. Growers are marketing their Currants in that State as well as the other States as opportunities occur, there being no compulsory export system, and it is reported that prices as low as 2d. per lb. are being accepted.

So far the growers have not shared in the advances provided by the Commonwealth Government, and which have been distributed in the other States. This is considered to be due to the fact that the W.A. growers were late in making application for this form of assistance. As a matter of fact, Western Australia held out from these proposals as they adopted a different line of thought. For instance, they urged that in view of the large quantities of dried fruit coming on to the market owing to the repatriation policy, the most practical form of assistance was for the Federal Government to provide a bounty on the quantity declared to be necessary for export.

With a definite offer of practical assistance in this way, it is considered that no difficulty would have been experienced in the passing of the legislation necessary to control the dried fruits output in the States concerned. Western Australians deemed this method to be the only practical way of handling the problem, and they contend further that later experience has proved that their original contention was correct, as compared with the plan adopted, viz. to finance the 1925 crop (at 6 per cent. interest), such advance to be repaid out of this season's fruit crop.

It is understood that the Government is giving careful consideration to the introduction of legislation for the control of fruit somewhat along the lines of the Queensland Act. While this matter is under discussion, however, leading growers are definitely of the opinion that nothing will eventuate.


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Established 1835
**FINEST TABLE APPLES A SPECIALTY**
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Consignment of Apples Solicited
Best market values and most favorable conditions
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All Consignments for U.K. will have Personal Supervision and Attention
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## Victoria.

### STATE ADVISORY BOARD.

At a meeting of the Victorian State Fruit Advisory Board, held on July 7, Mr. J. M. Ward (Superintendent of Horticulture) presiding, delegates criticised the action of the Minister for his expressed intention of not presiding at the meetings. The Chairman said it was quite unusual for the Minister to preside at such meetings, and it was not done in the other States.

Representing the Metropolitan Fruitgrowers' Association, Mr. J. W. Aspinall said he thought secretarial work, as at present conducted, could, and should, be handled by the Department.

Lacking a constitution, a committee was formed to draw up a report for the next meeting.

A deputation from the Retail Fruiterers' Association attended and submitted samples of Apples, affected with Black Spot, purchased in the market that morning, and urging that there be no exemptions to the "branding" regulations. The Chairman said there was ample power under the present Act for the successful prosecution of persons submitting such fruit for sale. The "branding" regulations would not assist, once the fruit was removed from the market.

Members of the deputation admitted that there had been a steady improvement in the quality of fruit submitted for sale.

After some heated exchanges between Mr. J. W. Bailey and the chairman, the latter stated that the present regulations (including the exemptions) would remain in force for twelve months to give them a fair trial.

A resolution was adopted, on the motion of Messrs. Wade and Cook, asking for the deletion of the exemptions.

As the canned fruit grading regulations were stated to be too stringent, it was agreed, on the motion of Messrs. W. J. Foster and V. R. McNab, to request the Australian Fruit Council to call a conference of representatives of the canners, growers and Customs officers to discuss the matter.

### PROPOSED ORCHARD TAX.

#### Victorian Growers Divided.

There is considerable dissatisfaction amongst growers at the turn of events regarding proposals for the imposition of an "Orchard Tax" or registration fee. One grower sums up the position thus—"We asked for the tax in one form, the Minister says he will give it to us in another form—one we don't want, and says we ought to be thankful."

The grounds of complaint are stated to be:—

1. The power to collect is to be embodied in an amendment to the Vegetation Diseases Act, the money will be collected by the Department of Agriculture, and returned to growers' organisations as the Department sees fit.

2. This by no means accomplishes the purpose of the Orchard Tax Act as operating in New Zealand, by which means a strong Fruitgrowers' Federation has been built up.

The tax proposals in Victoria will split the sections further apart than at present.

3. There is at present a substantial debit, and one which is increasing week by week in the persistence of the State Fruit Advisory Board, as all the money there expended will be a first charge on the money collected from the growers.

4. The Minister announced the fee would be 1/- per acre. Many think 6d. per acre would be sufficient, and that allowance should be made for orchards not in bearing.

It is understood that growers in several electorates are requesting their parliamentary members to oppose the measure in its present form.

**Price of Raspberries.**—In the report of the Victorian Berry Growers' Conference, published last month, the price of Raspberries was mentioned at "3/- per lb,": this should have read 3/- per doz. lbs.

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## METROPOLITAN FRUITGROWERS.

THE annual meeting of the Metropolitan and District Fruitgrowers' Association was held at Box Hill on July 9, Mr. J. Jordan presiding over a good attendance. Mr. W. H. Everard, M.L.A., congratulated the Association on the fine work accomplished, particularly in opening and maintaining kerb markets. The Government grant of £200 towards this work was appreciated. Mr. J. M. Ward, Superintendent of Horticulture, stated that the main provision

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Best market prices and prompt account sales returned.
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in the Orchard Registration Bill was the power proposed to be given to the Department to collect the fees; the details would be worked on the by regulations. Mr. R. E. Boardman urged the growers to unite, as by contributing a small levy they could not only link up in an Australian Fruitgrowers' Federation, but substantially reduce further inevitable Arbitration Court costs.

Mr. Geo. Mock, President of the Victorian Fruitgrowers' Central Association, mentioned the success of "Garden Week," and hoped growers would make a bigger display at the next opportunity.

The annual report, presented by the Secretary, Mr. J. W. Aspinall, stated that users of the Victoria Market strongly objected to the proposal for an every-day opening of the markets. Satisfaction was expressed that open cases were exempted from the branding clause in the new regulations. It was desired to peruse the Orchard Tax Bill before it was presented to Parliament. Kerb markets, which were appreciated by the public, could be increased if permission were given by certain municipalities. Mr. W. H. Everard, M.L.A., was an untiring worker in this cause. The report and balance-sheet were adopted.

The officers were re-elected:—President, Cr. J. Jordan, J.P.; Secretary, J. W. Aspinall; Vice-President, J. Tully, J.P.; Executive—Messrs. A. A. Lechte, Hy. Clay, Alf. and R. C. Fankhauser, J. Stevens.

## "CASE LOT" TRADE.

A poster has been issued by the Railway Department advising that a new system of delivery has been arranged whereby packages of fruit and Tomatoes will be delivered to any house in Melbourne or suburbs at the following special cheap rates:—

Railway Charges for Case Lots.
(Not exceeding 30 lbs.)

| Rail Mileage | Rail Charge | Carrier's Delivery Charges. | Total Cost Grower to Your Door. |
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| Up to 25 miles | 6d. | 9d. | 1/3 |
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| 102 „ 400 „ | 1/- | 9d. | 1/9 |
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| Up to 25 miles | 9d. | 1/- | 1/9 |
| 26 „ 224 „ | 1/2 | 1/- | 2/2 |
| 225 „ 300 „ | 1/3 | 1/- | 2/3 |
| 301 „ 376 „ | 1/4 | 1/- | 2/4 |
| 377 „ 400 „ | 1/5 | 1/- | 2/5 |

The following low charges are made by carrier for delivery from Melbourne to the home:—

Case or package of fruit or country produce:—30 lbs., 9d.; 60 lbs., 1/-; Potatoes, 2/- per bag. For any consignment of goods in one or more packages, the prices are:—56 lbs., 1/-; 1 cwt., 2/-; 2 cwt., 3/-; 3 cwt., 4/-; 4 cwt., 5/-; 5 cwt., 6/-.

Consignees are instructed to write full postal address on each package, and consign by goods train to Melbourne, where it will be handed at once to authorised carrier and delivered the same day to Melbourne or suburban address. Add the words, "To be called for," to each package if delivery by carrier from Melbourne be not desired.

### New Canning Factory.

The Victorian Government, having guaranteed an amount of £40,000, a fruit canning factory will be erected at the Mooroopna Railway Station, to serve in particular the growers in the pioneer district of Ardmona.

## COOL STORAGE CONFERENCE.

The Annual Conference of the Fruitgrowers' Cool Stores Association of Victoria will be held at Diamond Creek on September 1st and 2nd. Mr. R. M. Finlay will preside: it is hoped that Senator Wilson, Minister of Markets, will open the proceedings.

Items have been listed for discussion as follows: Canning Pears (Executive), The Proposed Orchard Tax (Tyabb), Municipal Rating, Temperatures for Fruit Storage, "Surrey" Shipment of Williams Pears (Harcourt), the Root Borer Pest (Hastings), Temperatures for Apples, 34 deg. or 32 deg. (Burwood E.), Scald and Its Remedies, Various Fruits in a Single Chamber (Doncaster W.), Income Tax, and Advertising Fruit.

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Agents Wanted in—
MELBOURNE, HOBART, NEW ZEALAND and WESTERN AUSTRALIA.
BANKERS:
National Provincial Bank Ltd., Long Acre, London. Barclay's Bank, Henrietta Street, Covent Garden.

Papers will be read by Mr. Gerald Lightfoot (Institute of Science and Industry), Mr. Harrison (Department of Agriculture), Mr. J. H. Lang re Brown Heart reports; Mr. Fraser (Vacuum Oil Co.) will give an illustrated lantern lecture dealing with lubrication.

The first day of the Conference will be taken up with business items. On the second day there will a trip to Yan Yean.

### HARCOURT FRUITGROWERS' PROGRESS ASSOCIATION.

The annual report of the Harcourt Fruitgrowers' Progress Association to 30th April reveals a satisfactory state of affairs. The overdraft of £1,000 with the Primary Producers' Bank proved a great boon. The contract for supplying 114 tons of Plums to the Australasian Jam Co. was satisfactory. Freight savings to the extent of £1/2/6 per full truck, were effected by the secretary consigning all export fruit. Many matters of important detail dealing with local and interstate trade were dealt with. The district crop was about average (300,000 cases): the wet spring necessitated continuous sprayings to defeat the black spot. The export total was 60,000 cases. Satisfaction was expressed at the re-opening of the German market. Brisbane absorbed 50,000 cases. Prices on the whole have been remunerative. Some idea of the business transacted will be gathered from the lines purchased—Shooks, £2,741; cases, £1,285; arsenate of lead, lime sulphur, oil and benzine, £2,332; manures, £609; wood, wool and tissue paper, £911; strawboards, £524; fruit trees, £418; nails, £205; whilst £702 was paid in freight on inward goods. The balance-sheet shows a turnover of £12,321 (a record). A nett profit of £533 was made, which, added to the previous balance, shows £1,418 at the credit of the P. and L. account. The report closes with an appeal for continued goodwill and co-operation.

### ADVERTISING PAYS.

"The advertiser, who, having amassed wealth through aggressive advertising, is now resting on his oars, can, if he listens, hear the thud of his competitor's rowlocks as he overtakes him in the selling stream. If he is wise, he will appreciate the almost inexorable working of the law which decrees that those who stand still will be caught up with and passed, and eventually lost or submerged."


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Arsenate of Lead
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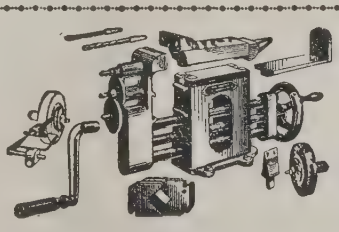
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PROPERTY ORCHARD, 19 acres, 11 acres bearing, 8 acres 4-year-old trees, 11 under cultivation, 34 grass, good dwelling, superior Apple house and hay shed; all other necessary outbuildings. **Terms**—1-3rd cash, balance over 10 years at 7 per cent. Inspection invited.

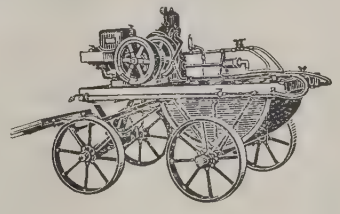
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### 2,000 LISBON LEMON TREES FOR SALE.

£5 per 100, or offer for the lot to clear. These trees are budded on Orange Seedlings, some sweet, some bitter, as advocated by Mr. S. A. Cock, Government Citriculturist. All strong, sturdy trees.

SALOME G. CROUCH,
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Engine, 2 h.p. 4 cycle, Horizontal, with two flywheels, direct geared to double cylinder pump, with air chamber and pressure gauge. Wooden tank, 80 gallons, with mechanical agitator. Mounted on substantial 4 wheel carriage, with shafts. Equipped with two 30ft. hoses, directors and nozzles, or with spray guns. Maintains pressure to 200 lbs. Also supplied as a Sheep Jetter.

**A Safe Investment for the Orchardist.**

Write for Catalogue and Price List. Mention this paper.

H. V. McKay, Pty. Ltd.
SUNSHINE HARVESTER WORKS
SUNSHINE
**Showrooms—**
**664 Bourke St. West, Melbourne.**
And at Brisbane, Sydney, Adelaide, Perth.

## RUMMY RUMINATIONS.

(By Willie Wagtail.)

WELL, here we are again. After my trip to E-chook-a, I was feeling very festive, and fit for cheeking everybody. Then came July, and I had to prepare my Income Tax returns, and all the joy went out of life. I felt worse than if I'd eaten a Murray crayfish. Anyhow, having a "quiver full" of young Wagtails coming on, I get a substantial "deduction".' (Ah! how I love deduction), so the Government won't get very much out of me.

It always grieves me to pay Income Tax. I think of my hard earned splosh going to keep fellers in Parliament who take a delight in bunging on sugar embargoes, Arbitration Court awards, and other trials. But I mustn't write like this, or I'll be accused of stealing Mr. Lenne's thunder. Talking about sugar doesn't make me feel sweet, so there may be some sour things to say this month. [But don't let me get too pessimistic, Mr. Editor.]

I'm thinking of leaving Victoria. For instance, think of the fun they're having in New South Wales. Wish I could have attended their Conference, and heard the boys roaring up things in general. Some big guns, sure, bo'—(that's American, 'cause the Fleet's here). A General in the chair, and the general secretary a Colonel (one of the knuts), and I heard that some of the fellers made general nuisances of themselves. They're going to reorganise the Department of Agriculture, making sections for the separate kinds of fruit, have better pest research, fruit experiment plots, and plots to catch the asses who send sour and dry Oranges to market. Quite right, too, you should hear the people who buy these Oranges "go to market." Oh, dear, I couldn't tell you, Mr. Editor, 'cause this is a polite paper.

But what puzzled little Willie was the idea of the Advisory Board, comprising (1 Banana), (1 Citrus), (1 canned fruit, etsetterer. How the dickens (excuse my bad language), can the Banana boy know what the Citrus lad is driving at, while the dried fruit and the canned fruit wags speak a different language. (And I've heard some strange language from both of them.) However, it's all right, if we haven't arrived yet we have the satisfaction of knowing, as the song puts it, that "we're on the way."

Don't you think Mr. Gregory, M.H.R., of Western Australia, is a first-rate nark? I do. He ups and asks a question in the House as to when the next meetin' of the Federal Advisory Fruit Council would be held? There's a rude question for you! "Soon as convenient," was the reply, which might mean "Dunno." Serves old Gregory right. What right has he got to go askin' questions at all? Any old time will do the growers for a conference, 'cause they can quite easily put off pruning or spraying, a picking, or some other useless frills.

Eh, what's that? Queensland? Hush. The poet was right after all, "E dunno where 'e are." The growers are all right, bless you, but it's Mr. Macg-r-regor I'm worrying about. I like Mac., he's a man after my own heart, and if this weary old world doesn't come to an end too suddenly, he'll go on organising till he does quite a lot of good. Who was it said that Russia would be the next sphere of his activities? Personally, I don't believe it. In the meantime, the C.O.D. will continue to do its best for the growers.

Some day, I expect we'll come to earth, and be able to produce in competition with other parts of this sinful world, or else we'll need Government bounties to pay the difference. We need now a very big campaign to make Australians eat a darned sight more fruit than they do now to account for the quantities coming forward from the areas financed by the Guv'ment. The lads who are walking off their blocks are being absorbed in other industries. One feller told me he'd had such a something full, that the only Raisin he wanted to hear about was the boss raisin' his screw, and that he'd look cross-eyed at the next person who mentioned Peaches. (He's married since, poor chap, but I hear he's altered his opinion of "peaches").

We're having a frightful time arn't we? But we're going to carry on. Have a cigar?


# Special Notice to Fruitgrowers

In response to numerous requests from growers for information as to who are members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA, the following list is given. All are members of the above Association, and are registered firms:—

**H. M. Wade & Co.**, 471 Flinders Lane, Melb.
**T. Stott & Sons**, 11 Western Market, Melb.
**F. Booth & Sons**, 15 Western Market, Melb.
**H. L. E. Lovett & Co.**, 410 Flinders Lane, Melbourne.
**A. E. Pitt**, 12 Western Market, Melbourne.
**J. Davis**, 13 Western Market, Melbourne.
**G. Woolf & Sons**, 3 Western Market, Melb.
**W. S. Tong**, 4 Western Market, Melbourne.
**Silk Bros.**, 441 Flinders Lane, Melbourne.
**J. G. Mumford**, 449 Flinders Lane, Melb.
**J. W. Ross**, 6 Western Market, Melbourne.
**W. Sweeney**, 14 Western Market, Melb.
**J. H. Young & Co. Pty. Ltd.**, 7 Western Market, Melbourne.
**D. Smith Pty. Ltd.**, 480 Flinders Lane, Melb.
**Silbert, Sharp & Davies Pty. Ltd.**, 17 Western Market, Melbourne.
**A. Millis & Sons Pty. Ltd.**, 5 Western Market, Melbourne.
**W. A. Watkins**, 62 King Street, Melbourne.
**P. A. Patrikeos**, 31 William Street, Melb.

The whole of the QUEENSLAND FRUITS sold in Victoria, is handled by members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA, under appointment by the Committee of Direction of Fruit Marketing, Brisbane, Queensland.

GROWERS PROTECT YOURSELVES by consigning to members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA.

Correspondence is invited by the Association.

J. D. FRASER, Secretary, 325 Collins Street, Melbourne.

## INSECT PEST CONTROL.

### Cherry and Plum Tree Borer.

These insects are fairly numerous at present, and are very destructive to Plum and Cherry trees. The eggs are deposited by the moth on the bark of the trees. When the eggs hatch, the grubs commence to tunnel into the tree, first tunnelling for some distance under the bark, and then gnawing their way right into the very heart of the tree, causing same to become sickly, and when badly infested, to die. Plugging the tunnels with a piece of rag dipped in bisulphide of carbon will destroy caterpillars. The openings of the tunnels should be immediately closed over with soap or clay to prevent the fumes from escaping.

The insect pests, viz., Painted Apple Moth, Peach Aphis, Codlin Moth, Cherry Aphis, Scale Insects, Red Spider and Bryobia Mite, Pear-leaf Blister Mite, Orange and Lemon Aphids and Woolly Aphids mentioned in last issue of "Fruit World" should receive attention during August.

### The Pear Root Aphis.

These comparatively new pests of the Pear in Victoria are causing much damage to Pear stocks, also to Pear trees in many parts of Victoria.

Experiments against these insects are being carried out by the Government Entomologist (Mr. C. French, Jr.), at Garfield, Box Hill and in the Goulburn Valley, where these insects are causing growers much concern. The results of the experiments should be made known in a few weeks' time.

Experiments against Root Borers are also being carried out by the Government Entomologist and Mr. L. Pilloud, Orchard Supervisor in Gippsland.

### Tractor Implement Demonstration at Kilsyth, Vic.

An interesting and instructive demonstration with the Fordson tractor and Harvey orchard implements was given on the orchard of Messrs. H. L. Tompkins & Sons, Kilsyth, Vic., last month. About fifty growers from Kilsyth and surrounding districts were present. The effectiveness of the "Harvey" special tractor implements was satisfactorily demonstrated. The implements included the three-furrow light tractor plow, two-way orchard disc cultivator and spring tooth cultivator.

## HUGE IRRIGATION LOSSES IN U.S.A.

### Elwood Mead a "Visionary."

Mr. Elwood Mead, Director of the U.S. Reclamation Service, but formerly Chairman of the Californian Land Settlement Board (states the San Francisco "Examiner"), is charged with having caused California a loss of a million dollars in connection with the Delhi Land Settlement Colony, by Governor F. W. Richardson in signing the Assembly Bill 1258 and appropriating $250,000 for the relief of the distressed colonists. This colony, the statement declared, is a "monument of the visionary schemes of Elwood Mead."

The settlers cut out a picture of Elwood Mead, and with a rope round the neck, hung it in effigy in a public highway.

Elwood Mead some years ago took a prominent part in laying out some of the irrigation lands of Victoria, Australia.

### As Others See Us.

A reader in England writes:—"The 'Fruit World' is, in our opinion, the best fruit trade paper extant. Its impartial as well as far-sighted policy is appreciated here."


FRUCHTHANDEL GESELLSCHAFT
SCIPIO & FISCHER
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ESTABLISHED 1902
OPEN FOR CONSIGNMENTS OF
AUSTRALIAN, TASMANIAN & NEW ZEALAND FRUITS
*For Further Information communicate with*
**Advances Offered on Consignments.**
**Rinne, Harris Pty. Ltd., 434 Collins St., Melbourne**

**FRUIT TREES . .**
**Roses, Shade Trees, Shrubs**
**LASSCOCK'S FOR QUALITY**
*We have a Reputation* — Hardiness, Healthiness and Vigor, are characteristics of the trees sent out from Lasscock's Nurseries.—Our Customers say so!
Grown under ideal conditions they make rapid headway when transplanted to new quarters.
Special attention is paid to Packing. All worth while varieties are listed. Prices Right.
**Send for Lasscock's New Catalog.**
**Lasscock's Nurseries,** Henley Beach Road, LOCKLEYS, STH. AUSTRALIA

# Poultry Notes

## PRODUCING NEW LAYERS.

### The Broody Hen Method.

IN MANY ORCHARDS and farms the production of eggs is on a comparatively small scale.

In the form of a modest side line that keeps the family well supplied, with still a dozen or so over for sale locally, it is often very profitable. It can be made even more so if some simple economic principles are adhered to, and that at no extra cost.

Old birds (as layers they are generally classed as old at two years) should be weeded out. They will help to keep down the meat bill as well as bringing in additional revenue.

The culls must be replaced with pullets, and the problem can be solved simply and inexpensively.

### The Sitting Hen.

The first requirement is a broody hen. If there are a number available, the gentlest should be selected. The quieter they are the better, as they make the most consistent and therefore the most reliable sitters.

The sitting hen must be made quite comfortable for her long job, and a tin of good lice powder will accomplish this, if necessary.

Rub the powder well into the feathers, and endeavour to work it down right to the skin, as lice are particularly disturbing to hens during this period.

Having made a decision as to which bird (or birds) to use, the removal should be made after dark, and with as little disturbance as possible.

The broody hen should be handled tenderly and with care, and she should be placed for a day or two upon a few nest eggs to test her out. If she takes kindly to her new nest and looks like a stayer, the eggs may then be placed to hatch.

Of course, it can be readily understood that a hen would prefer to sit where she has been laying. That would be quite the natural proceeding. If she can be left there, all the better, because she will be more satisfied and contented than if moved to a new nest in possibly a different situation.

As it is natural for her to sit where she has been laying, it is by far the best plan to arrange it that way for her if possible.

The only thing that must be considered, and it is by no means unimportant, is whether she will be in danger of being bothered by the laying members of the flock. It is sufficiently well-known how she will resent interference for this to be appreciated.

To go against the natural order of things is always a difficult matter, and the less we try to the less trouble will result. Follow Nature's plan, then, leave her where she has been laying, and the result will be greater success.

### The Nest.

Nests for hatching should be on the ground for preference. Should this be impracticable, soil, slightly damp, should be placed under the nest material. If the nest used has been previously utilised by other laying members of the flock, the wisest plan is to clean it out thoroughly, and disinfect before providing with new nest material. Only by this method can the place be made comfortable and free from lice and other parasites.

Do not forget to so situate the nests that the sitters will not be disturbed by the layers.

For those essaying hatching for the first time, it is suggested that a small barrel makes a good nesting place. If boxes are used, they should not be smaller than 14 inches square by 14 inches deep for a small hen, or at least 2 inches larger all round for a large hen.

### Selection of Eggs.

The directions for the selection of eggs for incubation in the July issue ("Fruit World," page 294) apply also to hatches for which hens are used.

But the most frequent mistake is made by putting more eggs under a hen than she can efficiently cover. Avoid this error, as the results are particularly unhappy.

In turning the eggs, the hen moves them around and about, working the centre ones in time to the outside. The unfortunate result of this is that the whole hatch is endangered by over-cooling, and weakly chicks are the ultimate result.

Strong and healthy chicks are the only sort of stock worth considering, so bear this in mind as a mistake to be avoided.

**Small sittings, well hatched, are far better than large sittings poorly hatched, and with a good percentage not hatched at all.**

Again, we are up against Nature. A hen in a state of nature would not lay more than she could hatch successfully. Many a time and oft have we seen this, when a proud mother has come "clucking" home from her nest under the shelter of a hedge or stack with twelve hefty, vigorous chicks from her own twelve eggs!

But, cooped up and thoroughly domesticated, a hen can make a bad job of it just the same as a badly tended incubator will.

**Weakly chicks are hard to raise,** and anyhow will never be profitable, whether part of a small or more extensive flock.

### The Correct Number.

In cold weather, not more than ten eggs should constitute the hatch, while 12 to not more than 13 is a reasonable number in warm weather.

The reason why this point has been stressed, is that only the healthy and strong pullets will prove profitable, and even then they are hard enough to raise.

Watch events closely, and observe how the chicks perform on their first birthday. You can take it that if a chick is too weak to peck its own way out of the shell, then **it is too weak to bother rearing.**

Not only is it economical to get rid of the weaklings at this stage, when it means only the loss of an egg or two, but it is less discouraging than to have them die a week or two later with the resultant loss of time, labor, feed and the care that has been spent on them.

## A POINT FOR POULTRY FARMERS.

### Scientific Raising.

It goes without saying that to be a sound economic proposition, poultry must be raised on truly scientific lines.

Various practises are adopted from time to time to cull out weaklings, bad layers, and non-layers.

Now that the incubation season is in full swing, no doubt this problem will present itself again to many.

Now is the best time to decide upon the most efficient and scientific method of first selection—during incubation.

Some successful breeders have adopted the following practice—to stop incubation when half the eggs are out. The claim is put forward that the first half of the total hatch contains fully 90 per cent of real profit makers, while of the second half 90 per cent. will be not merely doubtful, but positively unprofitable.

There's nothing succeeds like success, plus scientific management of the flock at all stages, so maybe this claim is well worth looking into.

**TREVATT APRICOT TREES FOR SALE**

The attention of persons interested is invited to the fact that the Water Conservation and Irrigation Commission has, at its Griffith Nursery, quantities of

**TREVATT APRICOT TREES**

which are available for disposal.

Quotes will be supplied on applications being made, addressed—

**MANAGER, MIRROOL IRRIGATION AREA, GRIFFITH.**

Reduced Prices will be given for large orders.

**GEO. J. EVATT**

*Commissioner, Water Conservation and Irrigation Commission,*

**LEETON, N.S.W.**

# Good Health in Fowls



## Essential for Successful Winter Laying.

Yes, but more than good health is necessary. A fowl may be in the best of health as the result of the plentiful supply of food given, and yet not lay eggs. What's the reason? Simply this: The food is not "egg-producing," it's "fat-producing." To prevent the latter and have the former—and at the same time ensure a vigorous and healthy constitution—means the giving of food which comprises the essentials for diverting nervous energy in the direction of egg-laying instead of fat-production. Karswood Poultry Spice, which contains ground insects, is the tonic food required. Its worth and success has been proved by half a million poultry keepers. Eggs are still scarce and prices still high. Why keep fowls and pay these high prices for eggs? Make your back-yard flock a profitable one. Do what these half million have done. Start with a packet of Karswood to-day, and note the results that will accrue within a fortnight, then keep on regularly all through the Winter with Karswood and have your own eggs—not bought ones. The cost is one half-penny per day for twelve birds. Think of it. Hundreds of poultry raisers and "backyarders" throughout Australia now have no misgivings concerning a regular supply of winter eggs, and, as the following testimonials prove, this happy assurance is based upon the wonderful tonic powers of "Karswood."

### 480 Eggs—7 Hens—May to November

"I am writing to you to let you know the results of the egg laying. My fowls started laying in May, and up to the present they have laid 480 eggs. The number of fowls I have is seven White Leghorns and one rooster. I feed them on pollard—seven handsful mixed with scraps from the table and a teaspoonful and a half of Karswood Poultry Spice. My birds are all healthy and fat. I am very thankful to say that I use the Karswood Spice, and I also thank the firm for the books they sent me. Everyone I meet in the poultry line I will tell them of your Karswood Spice."

(Signed) A. A. LEE.
East Brunswick, Melbourne, Victoria.

### "Best Egg Producer"

"Six Black Orpington pullets fed once daily on Karswood Poultry Spice laid 396 eggs from 5th August to 31st October. The last month they laid 160 eggs. Fifteen pullets of the same breed from 1st August to 31st October laid 626 eggs, which had not Karswood Spice. I am sure Karswood is the best egg producer on the market, and will always recommend it. You stated in your letter that you were forwarding a book entitled 'Fortune from Eggs,' but up to the present I have not received it."

(Signed) L. J. COLEMAN.
Devonport West, Tasmania.

### MAKE THIS TEST.

Go to your local Grocer, Storekeeper, or Produce Dealer. Get a 1/- packet of Karswood Poultry Spice, then give it to half a dozen of your birds in accordance with the directions on the packet. Do not expect immediate results—Karswood works naturally, not suddenly. It takes at least a fortnight or three weeks to produce results but they are good and sure.

### NOTE THE ECONOMY.

1/- packet supplies 20 hens for 16 days.
2/- packet supplies 20 hens for 32 days.
13/- (7lb. tin) supplies 140 hens for 32 days.

### SUPPLIES.

"Karswood" Poultry Spice is obtainable from all Stores and Poultry Food Suppliers at the following standardised prices:—

| | |
|---|---|
| ½ lb. packet .. .. .. .. | Price, 1/- |
| 1 lb. packet .. .. .. .. | Price, 2/- |
| 7 lb. tin .. .. .. .. .. | Price, 13/- |
| 14 lb. tin .. .. .. .. .. | Price, 25/- |
| 28 lb. tin .. .. .. .. .. | Price, 48/- |

*If your local dealer cannot supply you, write direct to Messrs. Henry Berry Pty. Limited, 380 Collins St., Melbourne, adding postage----6d. on half-pound packets and 9d. on one-pound packets---to the above prices.*

## Tasmania.

### Seasonable News Items.

THE winter experienced this season is the coldest for many years. A succession of hard frosts will have a good effect upon areas that have received an early ploughing, and also exercise an appreciable check upon insect pests.

Fruitgrowers throughout the whole of the State are busy with preparations for the coming season.

Pruning is completed in most districts, and cultivation, together with the dormant spray applications, are engaging attention.

Owing to the improved conditions upon overseas markets, many areas that have been neglected are receiving renovation treatment. Business is brisk in respect to sales of manures, sprays, and orchard implements; there is a promising outlook for next season's crop, and growers are hopeful that the general improvement of marketing conditions and prices will continue.

**Williams Pears Export.**

A report is to hand concerning the experimental shipment of Williams Pears that was forwarded in one of the chambers of the "Esperance Bay" last February.

The fruit was obtained from the different districts of the State being grown under varying conditions of soil and climate. Consignments arriving in the best condition, and realising the highest prices were those comprising fruit grown on light loams, underlaid by a mudstone schist. The heavier clayish soils, and those of basaltic origin, did not give such good results, whilst a consignment grown under irrigation was particularly affected by scald.

The fruit was packed in single trays (hardwood), with woodwool padding—plenty of space being left between the sides for ventilation. Picking was carried out from Feb. 8th to 14th, the different consignments being held in cold store until March 1st—the date of the vessel's departure. Arriving in London on the 17th April, the fruit was 48 days in transit, to which must be added a 14 to 20 days' period held in cold store before shipment.

The report shows that the bulk of consignments arrived in a green condition and brought from 6/- to 8/- per tray. Certain trays of fruits, although arriving in good condition, turned black after unloading, having the appearance of being frozen.

The experiment was arranged by the State Fruit Expert (Mr. P. H. Thomas), instructions being given for the temperature to be maintained at 30 deg. F.

**Fruitgrowers' Conferences.**

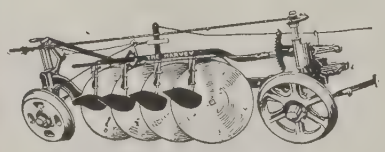
The Annual Fruitgrowers' Conferences were held during the month at Launceston and Hobart.


# The New "Harvey" Tractor Ploughs & Cultivators

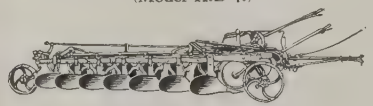
ELIMINATE MISDIRECTED ENERGY
WASTE TIME and NEEDLESS STOPS

**"Harvey" Power Lift Tractor Drawn Implements are always ready & simple to operate**

**Made in sizes from 2 to 7 Furrows.**

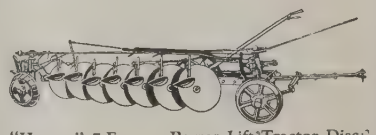


The Ideal Implement for Cane Field "Harvey" 4-Furrow Power Lift Tractor Plow (Model H.D 4.)

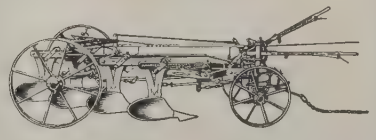


"Harvey" 7-Furrow Shortboard Tractor Plow, fitted with D Steel Shares and Circular Coulters. (Model D2).

"HARVEY"
STUMP-JUMP
POWER-LIFT
TRACTOR
- PLOWS -
are
Made in Sizes of 3-7 Furrows
& Fitted with 'D' Steel Shares



"Harvey" 7-Furrow Power Lift Tractor Disc Plow (Model H.D4.)



"Harvey" 4-Furrow Stump-Jump Short-board Tractor Plow. (Model S.J21).

There is a "Harvey" Implement for every purpose on the
ORCHARD, VINEYARD OR SMALL FARM

Spare Parts Obtainable at Shortest Notice

Send for Catalog and Descriptive Matter of our Complete Range of Implements.

**D. HARVEY,** Implement Manufacturer **BOX HILL,** MELBOURNE

*Show Room:* F. R. Mellor, 440 Elizabeth St., Melbourne

Both were attended by large and representative gatherings of producers, some important matters being discussed in regard to the future action of the industry in the marketing of oversea shipments. The Minister of Agriculture (Mr. Jas. Belton, M.H.A.) was present by invitation, and opened the Conferences. References were particularly made to the Fruit Division of the Department of Agriculture, and the assistance which was being rendered to producers through its efforts. Mr. Belton, in his address, was emphatic that most of the opposition to the Department came from Members of Parliament, who were supposed to represent the agricultural and horticultural interests. He mentioned that the scope of the Division was now severely limited, but that consideration would be given toward an improvement.

In the meantime, Dr. Cameron (the Director of the Victorian Department of Agriculture) is being requested to visit Tasmania and report on the better organisation of the Department.

**Demonstration Plots.**

Owing to the success and popularity of the spraying and manuring demonstration plots, which were conducted by the officers of the Fruit Division last season, in respect to the more efficient handling of various orcharding problems, arrangements are being made for their continuance this year. These will embrace—Control of Red Spider (summer infestation), Control of Black Cherry Aphis, Apricot Shot Hole, and the influence of potassic manures in Apple and Pear production.

These will be conducted in the various districts, and will be of value to orchardists in demonstrating the economic treatment of the various pests, etc.

**Personal.**

At the recent Launceston Fruitgrowers' Conference a vote of appreciation was passed to Mr. F. Walker, who tendered his resignation as producers' representatives upon the State Fruit Advisory Board.

Mr. Walker is one of the oldest members, and was first appointed to represent growers upon the old Central Fruit Committee in 1917. During the ensuing years until 1925 he had the honour of being annually elected by ballot as a representative.

Fruitgrowers throughout the whole of the State regret that advancing years had made his retirement necessary, and are highly appreciative of his efforts in their service.


## TIRED OF MEDICINE.

A man walked into Dickson's Pharmacy at Geelong, and asked if A.M.S. really cured Indigestion. He had a weak stomach and a poor appetite, and loss of sleep and despondency had made him desperate. "I've tried almost everything!" he said dispiritedly, "and I've lost faith in the wonderful cures I read about." It was explained to him that A.M.S. was simply the juices of certain herbs, which helped the food to digest and tone up the stomach, and that his stomach was craving for these precious juices. He tried A.M.S., and it cured him. Why not try it yourself? All chemists 3/-, or by post 3/6 a bottle from T. A. Dickson, Chemist, Geelong.


## NORTHERN TASMANIA.

We are having a very dry winter, in some places rain is badly needed, so that ploughing can be pushed on with; there have been some heavy frosts, and this should do the ground a lot of good, especially where it is turned over.

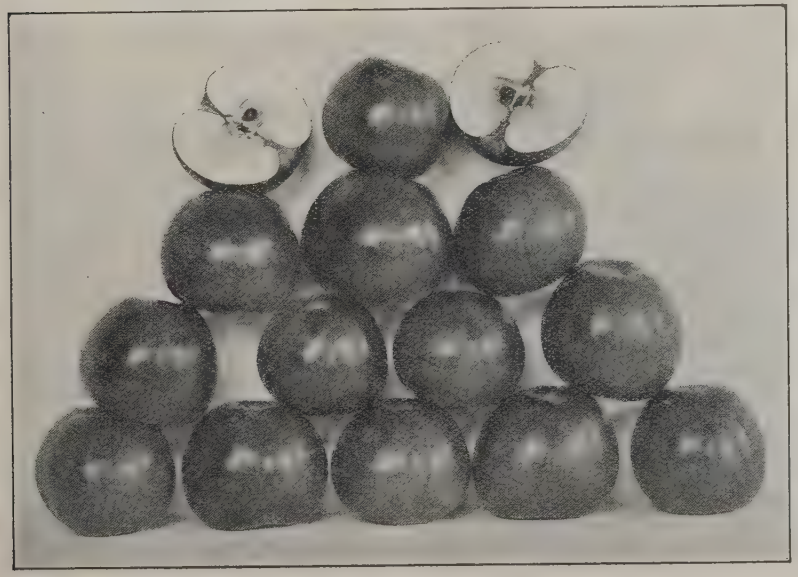
The past season generally was a poor one for the majority of growers, which is exasperating when prices have kept up so well. I doubt if there has ever been a season where fruit seemed to carry so well, and bring good average prices.

Owing to crop shortage we had only five boats from Beauty Point, and the long interval between "Boorara" and "Ballara" must have cost growers a large sum of money; prices were at their highest a few days after final sale from "Boorara," and the Strawberries appeared as the "Ballara" arrived, and although first sales were good, they dropped day by day until the market had receded about 4/-; it is worth noting the "Ballara" was delayed a few days in sailing; therefore delays are dangerous.

**Tamar Valley Co-op. Co.**—This Company seems to be going ahead on up-to-date and progressive lines. I understand they paid their growers 2/- per case on all fruit shipped overseas very early in June, and since then a further 1/6. It is understood they have an excellent insurance scheme. Co-operation, as practised by this company, seems attractive.

**Tamar Farmers and Fruitgrowers.**—This body has just launched an excellent scheme, originally proposed by Dr. Shone, to hold meetings from

(*Continued on Page* xvi.)

NEW LATE APPLE:

# "Elsie Grant"

YATES-ROKEWOOD HYBRID

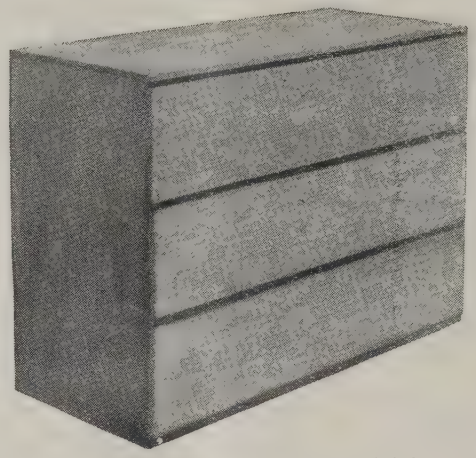
Better than either parent. Better size, better color, fine appearance, good quality, very solid; habit of Yates, but does not bunch; keeps longer out of cold store without wilting than any other Apple; very little aphis.

Every grower should test this promising variety. No trees for sale.

**Scions for grafting, 10/- per doz., 6/- per half doz., posted.**

T. H. GRANT

Beaconsfield, Victoria.



Australian Apple and Citrus Dump Bushel Case.

# SOFTWOOD CASES

(IMPORTED)

*Cheaper than hardwood if exported.*

*Cut to Australian Standard Sizes*

**DUMP BUSHEL** with one piece top and three equal piece side

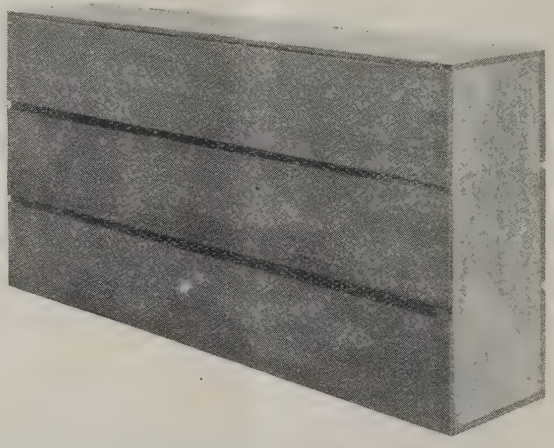
**UPRIGHT BUSHEL** with one piece top and three equal piece side

**DRIED FRUIT CASE** with one piece side and two equal pieces tops and bottoms

**CANNED FRUIT** with one piece side and two piece tops and bottoms

## SOME ADVANTAGES IN FAVOR OF IMPORTED CASES

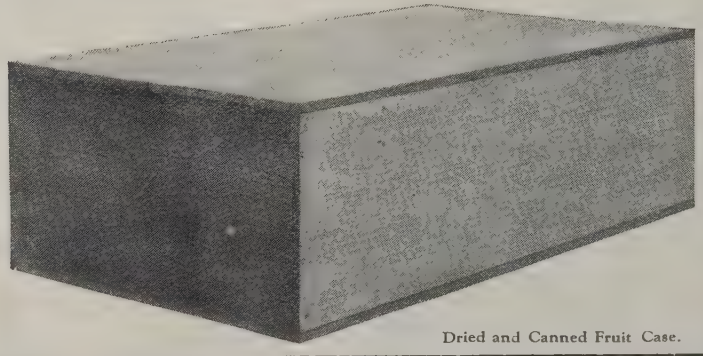
(1) *Full drawback of duty allowed on all cases exported*
(2) *1/3rd less freight than on Hardwood cases*
(3) *25% rebate on rail freight for full trucks*
(4) *All timber cut to exact sizes making it an easy matter to assemble a symmetrical case*
(5) *Every piece of timber fit and ready for use, thereby eliminating waste*
(6) *Can be supplied in shooks, or made up and branded*



Upright Bushel Case with Centre Partition.

**Particulars from the Largest Importers**

# Overseas & Interstate Trading Co. Ltd.



Dried and Canned Fruit Case.

52 Market Street,
Melbourne

*Phone Central 9110*

Also
King William Street,
ADELAIDE

## UNITED STATES' CANNING INDUSTRY SHOWS BIG GROWTH.

### Notes from Commonwealth Department of Markets.

The tremendous growth in the canning industry of the United States in recent years is evident from the fact that between 1909 and 1923 the output of canned vegetables increased 120 per cent., and of canned fruit 268 per cent., says the National Bank of Commerce in New York City. This increase is the more striking when compared with a growth in population during that period amounting to but 22 per cent.

Vegetables are by far the most important part of the canned goods output of the country, as reported by the Bureau of Census. It must be remembered, however, that the large quantities of dried Prunes and Raisins as well as other dried fruits consumed, help to make up the total amount of preserved fruit included in the diet.

The percentages of increase in the output of the principal kinds of canned fruits and vegetables in the year 1923 compared with the output of 1909 are as follows:—

Asparagus, 408 per cent.; Beans, 364 per cent.; Beets, 333 per cent.; Corn, 99 per cent.; Peas, 145 per cent.; Spinach, 1,158 per cent.; Tomatoes, 14 per cent.; other kinds of vegetables, 123 per cent.; total vegetables, 120 per cent.

Apples, 126 per cent.; Apricots, 148 per cent.; Berries, 200 per cent.; Cherries, 445 per cent.; Peaches, 380 per cent.; Pears, 185 per cent.; other kinds of canned fruits, 584 per cent.; total of canned fruits, 268 per cent.

In the export market, fruits rank much above vegetables, the total quantity exported in 1924 being more than four times as large. Peaches ranked first with a total of nearly 66,000,000 pounds shipped. Pears were not far behind, and Apricots and Pineapples followed in the order named. Nearly 10,000,000 pounds of canned Asparagus were exported in 1924. Next in importance came Tomatoes, Beans and Corn, showing something over 6,000,000 pounds each. A little more than 13,000,000 pounds of canned soups were shipped in that year, a figure of 6 per cent. below the 1923 level. In all other items reported except Tomatoes, and in all fruits except Plums, there was an increase in exports in 1924 over 1923.

The United Kingdom is the most important foreign customer of the United States for canned fruits, and in 1924 that country, including Ireland, took 79 per cent. of total shipments. Canada, second in importance, took 4 per cent. Of canned vegetables and soups Canada took considerably more than the United Kingdom. In 1924 the two countries together absorbed 86 per cent. of soup shipments, but only 38 per cent. of the canned vegetables sent abroad. From these figures it is evident that any trade or tariff arrangements which tend to encourage purchases from within the Empire will be felt severely by the United States trade.

The canning industry is important, not only to growers of fruits and vegetables, but also to steel manufacturers. It is estimated that 5 per cent. of the total steel output of the country in 1924 went into the making of tin plate. While this is used also for other purposes, a good proportion is required for the fruit and vegetable packs. Of particular significance to manufacturers is the fact that steel used in this way is not recovered, and must be placed with a new supply of cans each year.

## SYNTHETIC FOOD SUPPLY PREDICTED.

According to a report, synthetic production of the food supply was recently visualised as a possibility by Mr. Hoover, Secretary of Commerce, as a result of recent discoveries in chemical research. Mr. Hoover referred particularly to the synthetic production of sugar by passing a ray of light through formaldehyde, a process discovered by E. V. C. Baly, of the University of Liverpool.

Successful so far only as a laboratory experiment, Mr. Hoover declared that the implications of this discovery are far reaching, as it constitutes reproduction of plant life by synthetic means. It is the sun's rays that convert organic acids present in vegetation into sugar, Mr. Hoover observed, and if they can be utilised to produce the desired product synthetically that to date has been available only in vegetable form or by extraction from vegetables, an enormous transformation will be brought about in the food supply Mr. Hoover states incidentally that American industry is doing more research work than any other country.

"He that loveth a book will never want a faithful friend."—Barrow.

Always Reliable

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*received and forwarded to all parts of*

**The Commonwealth and Overseas**

by

**F. CAVE & CO.**

*Wholesale Fruit Merchants and General Agents*

Western Markets, Melbourne

*Postal Address:* — **42 WILLIAM STREET, MELBOURNE**

*Exporters of Choice Australian Fruits*

*Supplies of Tasmanian Woodwool always available, equal to best imported*

Cable and Telegraphic Address:—"CAVECOFRUT," MELBOURNE

*Suppliers of all Orchardist's Requisites*
*New and Secondhand Cases always on hand*

**Latham Dehydrators**

"STAND ALONE"

The "Rolls Royce" of the Artificial Drying World.

**Some Installations for Foodstuffs.**

| Purchaser | Principal Prods. |
|---|---|
| Merbein Dehydration Trust, Mildura | Sultanas Raisins etc. |
| Tasmanian Dehydration Pty. Ltd. Bridgewater two plants. | Apricots Prunes Apples |
| Charles Martin, Yackandandah | Prunes |
| Swallow & Ariell Ltd. Port Melbourne. | Carrots Turnips Cabbages, etc. |
| Woorinen Co-op. Pack. Shed, Woorinen | Sultanas Raisins etc. |
| Aurora Pack Co. Pty. Ltd., Irymple. | Sultanas Raisins etc. |

**D. J. LATHAM**

**157 Queen Street,**

Melbourne, Australia.

# The Fruit Trade

*Market Reports and News Items.*

**REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS,**

**Advertising in this Journal.**

**NEW SOUTH WALES.**

**Sydney.**

Chilton, F., City Fruit Markets.
Greenberg, S. & M., Fruit Markets.
Louey Pang & Samuel Wong Ltd., Thomas St., Haymarket.
Rogers, F. H. G., Fruit Exchange.
Rule & Beavis, Fruit Exchange.

**VICTORIA.**

**Melbourne.**

Coastal Farmers' Co-op. Society, Western Market.
Cave, F., & Co., Melbourne.
Davis, J., Western Market.
Lister, G., Western Market.
Millis, A., & Sons, Western Markets.
Mumford, J. G., 449 Flinders Lane.
Pang & Co. Ltd., H. L., Little Bourke Street.
Silbert, Sharp & Davies, Western Markets.
Stott & Son, T., Western Markets.
Tim Young & Co., Western Market.
Vear, F. W., 49 William Street.
Wade & Co., H. M., 471 Flinders Lane.
Woolf, G., Western Market.

**QUEENSLAND.**

**Brisbane.**

Barr, A. S., Fruit Exchange.
Collard & Mackay, Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Finlayson & Son, Fruit Exchange.
Geeves, H. V., Fruit Exchange.
Robsons Ltd., Fruit Exchange.
W. J. Whitten & Co., Fruit Exchange.

**TASMANIA.**

**Hobart.**

Jones & Co. Ltd., H., Fruit Exporters.
Peacock & Co., W. D., Fruit Exporters, and at London.

**Launceston.**

Bender & Co., 110 Elizabeth St.

**NEW ZEALAND.**

**Auckland.**

Radley & Co. Ltd., Fruit Auctioneers.
Turner & Growers Ltd., City Markets.

**Dunedin.**

Co-operative Fruitgrowers' of Otago Ltd.
Paterson, Thos., & Co., Vogel Street.
Reilly's Central Produce Mart.

**ENGLAND.**

**London.**

Da Costa, Gerald, Floral Hall, Covent Garden.
Jacobs, E., & Sons, Covent Garden
Joel, R., & Sons, 16, 17, 20 Russell St., Covent Garden.
Margetson & Co. Ltd., Covent Garden.
Monro, Geo., Ltd., Covent Garden.
Ridley, Houlding & Co., Covent Garden.
Swann & Co., 3 Salter's Hall Court.

**Hull.**

White & Son Ltd.

**Liverpool.**

Adam, James, Son & Co., 1 Temple Court.

**GERMANY.**

**Bremen.**

Fruchthandel, Gesellschaft.

**Hamburg.**

Astheimer, P. H., & Son., Fruchthof.
Lutten, J. H., & Co., Hamburg.
Stier, Aug., Fruchhof, Reps. J. B. Mills & Co., 9 Queen St., Melbourne.

## British and Australasian Market Reports.

**London.**

Capt. H. Dakin, representative for Geo. Monro Ltd., reports having received, per cables, prices as follows:

**"Moldavia,"** Pears, trays, Glouts, 5/- to 6/-; Vicars, 2/6; Barry, 8/- to 10/-; Easters, 6/- to 7/-. **"Boonah."** London consignment, Western Apples overripe. Tasmanian Sturmers sound. Pears. Glouts, 8/- trays; 14/- to 16/- halves; Anjou, 8/- to 10/-. Josephine, 18/- to 20/-. **"Euripides," "Cathay,"** condition generally good; some waste in soft varieties. Sturmers, 13/-, 15/-; Scarletts, Cleos., 11/-, 12/-; French Crabs, 13/-, 14/-; others, lower. Trade very slow.

* * *

Messrs. M. Isaacs & Sons Ltd., London, report prices ruling, per cable, to their representative (Mr. H. G. Colombie):—

**Tas.** Apples ex the **"Port Caroline," "Port Adelaide," "Borda," "Moldavia," "Euripides," "Boonah," "Ballarat"** and **"Cathay"** were— Sturmers, 9/6 to 16/-; F.C., 9/6 to 14/-; Stone Pippins, 11/- to 13/6; Cleos., 10/- to 13/6; Jons., 11/- to 13/6; S.P.M. and C.E., 11/6 to 14/-; others, 10/- to 15/-.

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**Liverpool.**

Messrs. MacGeorge & Jardine, Liverpool, report, per cables, prices as follows:—

**Tasmanian** Apples ex the **"Ascanius," "Persic,"** Cleos., 15/- to 22/6; N.Y.P., 15/- to 23/-; Sturmers, 12/- to 17/6; Crabs, 14/6 to 18/9; Jon., 15/- to 19/-; Crowns, 11/9 to 17/-; F.O.P., 14/- to 16/6; S.P., 14/- to 16/3. Ex the **"Boonah," Tas.** Sturmers, 11/- to 15/9; London Pippin, 9/6 to 13/9. **West Aust.** Dunn's, 15/- to 20/-; Cleos., 17/- to 21/-; Sturmers, 14/- to 15/9. **Tas.** Cleos. ex the **"Port Pirie,"** 11/- to 21/-; S.T.P., 10/- to 15/3; N.Y.P., 14/- to 18/9; S.N.P., 12/- to 14/-; F.C., 10/- to 14/-.

* * *

Messrs. J. C. Houghton & Co., 1 Temple Court, Liverpool, report 20th May, 1925:—

**Vic.** Jon. ex the **"Aeneas"** and **"Boorara"** realised 15/3 to 20/-; Cleos., 16/- to 21/-; Rome Beauty, 15/9 to 18/3; L.P., 15/9 to 17/6. **Tas.** Jon., 15/9 to 18/-; Cleos., 17/6 to 20/6; S.P.M., 15/9 to 16/9; D.C., 15/9 to 16/6; C.E., 16/6 to 17/3; S.T.P., 15/3 to 17/-. **South Aust.** Jon., 15/9 to 18/3; L.P., 16/- to 18/6; Cleos., 18/- to 21/6.

**Hull.**

Messrs. John Seed & Sons, Hull, report under date 8th June, 1925:—

The **"Demosthenes"** has arrived with 31,900 boxes of Tasmanian Apples, and although the produce was only of moderate quality, it sold readily. Cleos., 15/9, 21/-; N.Y.P., 15/6, 19/9; S.T.P., 14/9, 19/-; A.P.M., 13/6, 16/9; S.P.M., 14/6, 18/6; F.C.P., 14/6, 18/-. D. of C., 13/6, 17/6; Jon., 15/-, 20/-; C.O.P., 14/6, 22/-; Alf., 14/9, 17/-.

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**Germany.**

**Hamburg** (14/7/25).

Messrs. T. Boss-Walker Ltd., of Hobart, have received from their agents in Hamburg, the Internationale Frucht Import Gesellschaft, particulars of their second sale of Tasmanian Apples ex the s.s. **"Barrabool,"** to London and forwarded thence to Hamburg by local steamer. The fruit was more mature than that received a fortnight previously. Cleos. brought 18/6 to 24/6; Duke of Clarence, 17/9 to 23/-; Tasman's Pride, 19/6 to 22/-; Jon., 18/9. A few parcels lacking in color, and others of less popular varieties brought from 13/- to 15/6.

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**New South Wales.**

**Sydney** (22/7/25).

Mr. F. Chilton, City Fruit Markets, reports under date 22/7/25:—

The heavy supplies of citrus fruits which have been coming forward recently, together with the extremely cold weather experienced, have been the means of keeping prices very low.

The quantities of Apples at present available are sufficient for the demand at the high prices ruling.

The interruption to business generally caused by the strike is having a very bad effect on trade in all ways.

Queensland Fruits.—Bananas, 12/- to 22/- per case; Pines, smooth leaf, 9/- to 13/-; Ripley, 6/- to 9/-. New South Wales Fruits.—Bananas, 12/- to 22/- per case; Lemons, 3/- to 5/6 per bushel case; Oranges, common, 1/6 to 5/6; Navel, 6/- to 12/-; Mandarins, Emperor, 7/- to 10/-; Thorny, 3/- to 5/- per half case; Apples, Rome Beauty, 9/- to 15/- per bushel case; Granny Smith, 11/- to 17/-; Pears, Packham, 11/- to 15/-; Passions, 5/- to 11/- per half case. Victorian Fruits.—Apples, R.B., 9/- to 14/- per bushel case; Jonathan, 10/- to 15/-; Yates, 10/- to 16/-; Pears, B.B., 8/- to 12/-; W.C., 10/- to 15/-; Packham, 10/- to 14/-; Keiffer, 6/- to 8/-; Josephine, 11/- to 15/-. Tasmanian Fruits.—Apples, Dem., 13/- to 18/- per bushel case; R.B., 10/- to 15/-; N.Y.P., 9/- to 14/-; Jonathan, 9/- to 16/-; F.C., 8/- to 14/-; S.P.M., 10/- to 16/-; Pears, W.C., 5/- to 7/6 per half case; W.N., 5/- to 7/-.

### Victoria.

**Melbourne (28/7/25).**

The following are the prices ruling at the Western Market:—

—Apples, good to choice eating, 9/- to 11/-; good to choice cooking, 4/- to 7/-. Bananas—Queensland, 17/-, 23/- double. Lemons—Victorian, 5/- to 8/-. Mandarins—N.S.W., 10/- to 12/-. Oranges—Murray Valley, 7/- to 9/-; N.S.W., 7/- to 8/-; South Australian Navels, 10/- to 11/6; Sevilles, 6/- to 8/-; Victorian Navels, 7/- to 11/-; Passion-fruit, Victorian, 10/- to 18/-. Pineapples—Queens, large, 15/- to 16/-; medium, 12/- to 13/- double.

## MELBOURNE MARKETS.

### Citrus Export Urged.

The Victorian Central Citrus Association reports that up till the end of July, there has been very little export of Oranges, with the result that the Melbourne markets were glutted, necessitating several thousand cases being placed in cool store. To export only 5,000 cases would have relieved the local markets, and growers are urged right now to communicate with their local associations regarding export. Owing to the depleted supplies in Spain, California and Florida, it is anticipated by the V.C.C.A. that good prices will be received in England.

* * *

Observation of conditions on the Melbourne markets lead to the suggestion that there are considerable outlets for citrus other than through V.C.C.A. agents and that agents with regular customers are obtaining their supplies from other than Victorian sources.

As the fruit now being placed in cool store has a limited life, and as quantities are being held back in country centres, all of which must subsequently come forward, the hope is expressed that this will not lead to a bigger glut through the present restricted channels.

### Queensland.

**Brisbane (25/7/25).**

Prices for local fruit were:—Lemons, 1/- to 3/- a half-bushel case; Custard Apples, 3/- to 4/-; Papaws, 2/- to 4/-; Pineapples, rough leaf, 3/- to 5/- a case; smooth leaf, 2/- to 6/-; Oranges, specials, 8/- to 9/-; commons, 4/- to 7/6; Navels, 11/6 to 14/-; Mandarins, 11/- to 14/-; special, 15/-; Strawberries, best, 9/- to 13/- a dozen boxes; others, 3/- to 7/-; Passion-fruit, 9/- to 14/-.

Interstate Fruit.—Apples, Jon., choice, 13/- to 17/- a bushel case; inferior, 7/- to 10/-; French Crabs, 13/- to 15/-; I.P., 14/- to 15/-; N.Y.P., 11/- to 15/-; Statesman, 11/- to 13/-; Dem., 12/- to 14/-; Scarlets, 11/- to 14/-; Arom., 9/- to 14/-; G.S., 20/-; Yates, 7/- to 14/-; Rokewoods, 15/- to 16/-; S.P., 13/- to 14/-; D.F., 15/-; Rhy, 15/- to 16/-; S., 16/-; R.B., 12/- to 17/-; Stps., 12/- to 16/-; Pears, W.C., 14/- to 17/-; W.N., 15/- to 16/-; Jos., 14/- to 17/-; B.B., 12/- to 15/6; B.B.K.'s, 11/- to 14/-; Keiffer's, 9/- to 13/-; W.D., 12/- to 13/-; I.B.B., 14/-; M.C., 14/-; Rowells, 11/-; B.B.M., 14/- to 15/-; L., 14/-; P.T., 14/- to 15/-; W.M., 15/- to 16/-; Passion-fruit, 15/- to 16/-; Mandarins, 14/- to 16/-; Navel Oranges, 12/- to 15/-.

Gerald Da Costa

C.D.C. SQUARE DEAL

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**Floral Hall, Covent Garden,**
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*Importers and Distributors of all kinds of English, Colonial and Foreign Market Produce*

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8, Russell Street.
524, Central Avenue.
Stand, 151, English Flower Market. Stands, 31, 32, Foreign Flower Market. Apple Warehouses, Jubilee Market.
Tel.: Gerrard, 868 and 5786.
Telegrams: "Geracost, London."
Stands, Nos. 151, 152 and 153. Spitalfields Market, E.1, and 54 Brushfield Street, E.1.
Apple Warehouses:
Church Passage, Spital Square, London, E.1.
3, 4 and 5, The Arcade, Borough Market, London, S.E.1.
G.N.R. Potato Market, King's Cross, N.1.
18, Stanley Street, Liverpool. (Facing Commercial Sale Rooms.)
Deansgate, Manchester.
17, Humber Street, Hull.
Southampton Docks, (Facing No. 45 Shed).
202/4, Franklin Street, New York, U.S.A.
South West House, Greenmarket Sq., Cape Town, South Africa.

### Western Australia.

**Perth (23/7/25).**

Apples, Jon., prime, 9/- to 10/9; Cleos., prime, 8/- to 13/3; others, 7/-; Dunn's, prime, 9/- to 12/3; Yates, prime, 9/- to 14/3; others, 6/- to 8/6; Doherty, 5/- to 10/6; Granny Smith, 11/6 to 14/9; Rome Beauties, 6/- to 14/-; Del., 5/- to 8/-; Pears, Commerce, 8/6 to 9/6; Winter Pearmain, 8/- to 11/-; Navels, prime, 10/- to 15/3; Mandarins, prime, 5/- to 14/-; Oranges, 3/- to 4/6; Valencia, 6/-; Lemons, 2/6 to 10/9; Passion-fruit, ¼ cases, 10/6 to 14/6.

### South Australia.

**Adelaide (25/7/25).**

Apples, eating, 12/- to 14/- per case; cooking, 8/- to 10/-; Pears, eating, 12/- to 14/-; cooking, 8/- to 10/-; Lemons, 6/-; Oranges, common, 7/-; blood, 8/-; Poorman, 5/- to 6/-; Mandarins, 14/- to 16/-; Bananas, 26/- to 28/-; Passions, 25/- to 28/-; Pines, 14/- to 16/-.

### Tasmania.

**Hobart (18/7/25).**

Apples, S.T.P., Nos. 1 and 2, 7/3 to 8/6; others, 3/- to 4/9; F.C., No. 2, to 6/7; R.B., 4/9 to 5/2; Jon., to 4/6; N.Y.P., to 4/9; other grades, 2/- to 3/-.

FRUIT SHIPMENTS —— TO NEW ZEALAND
**Dunedin (N.Z.) and South Seas Exhibition**

**REILLY'S CENTRAL PRODUCE MART LTD., DUNEDIN**
advise Growers of CHOICE FRUITS to ship to Dunedin.

**REILLY'S** anticipate an increased demand for all lines of choice Fruit arriving on this market between the months of September, 1925 and May, 1926.

**REILLY'S** offer Fruitgrowers their faithful service and will be pleased to advise Fruit Shippers the probable prices available and prospects of making suitable sales.

Cable or write to **Reilly's, Dunedin.** Codes used—BENTLEY'S, MARCONI'S, WESTERN UNION, A B C 5th & 6th Ed.

—— **REILLY'S GUARANTEE FAITHFUL SERVICE TO ALL CONSIGNORS.** ——

# Tomatoes and Cucumbers

### Valuable Cultural Experiments.

A trial in resistance to "wilt" (Fusarium sp.) with four varieties seed, of which was secured from U.S.A., in comparison with a local variety, was carried out at Bowen, Queensland (states the Queensland "Journal of Agriculture"). The varieties were—Norton, Norduke, Columbia, Marvel, ex U.S.A. and Bowen Buckeye, a local variety selected by this Department some three years ago for its disease-resistant qualities, as well as for its general excellence all round. (This variety was originally named Hurst's Buckeye, but as a firm of London seedsmen advertise a variety under that name, it was decided to alter the name to Bowen Buckeye.)

The trial was very satisfactory, each of the five varieties proving very resistant, there being nothing to choose between them in that respect, since not one showed any sign of Fusarium, while a susceptible variety, planted between, developed the disease to the extent of 100 per cent. Though Marvel proved the best cropper of the imported varieties, the size of the fruit was somewhat small for marketing, though for canning it would be ideal. The other imported varieties were excellent in points of size, solidity, shape, carrying capacity, flavour and colour, comparing in those respects very favourably with the Bowen Buckeye, but less favourably in cropping capacity.

This season comparative trials were carried out on two farms on the Tableland, where the Bowen Buckeye again demonstrated its superiority in yield, whilst all varieties again proved disease-resistant. In these latter trials Marvel improved in size, and may do so in the Bowen district when grown from acclimatised seed.

The five proved disease-resistant varieties are regarded as distinct acquisitions, much credit being given to the Department for their introduction, especially for the Bowen Buckeye, which now is grown so extensively at Bowen as to comprise fully 90 per cent. of the crops.

Fertilisers on Tomatoes in comparative trial are being undertaken on three farms in the Bowen district, the results of which, however, will not be available until the coming year. At present the plants appear improved on each of the fertilised plots over the control, and interesting results are forecasted.

Cucumbers with fertilisers in comparative trials have been sown on two farms in the Bowen district. In these the fertiliser, besides being differently compounded, is applied in a shallow drill between the irrigation furrow next the row of plants, and broadcasted and worked into the soil where the cucumbers are grown to test the efficacy of both methods on each plot. Though finality has not yet been reached, each plot under fertiliser is cropping better than that without any fertiliser, and the broadcasting of the fertiliser appears to be productive of a better result than when applied in the drill.

A trouble with Cucumbers in the past was that when carried to the distant market the colour deteriorated, any light colour becoming tinged yellow, which is undesirable. To test the value of fertilisers in overcoming this defect, a quantity of fruit was secured from each plot and kept for a week; while some of the plots showed an improvement, it is considered that improvement will most easily be obtained by judicious seed selection.

*for Economical Transportation*

CHEVROLET

TRUCKS

*A New Standard in Values Established*

STUDY THESE PRICES:

Commercial Trucks

(12 hundredweight)

| | |
|---|---|
| COMMERCIAL CHASSIS | £180 |
| Light Lorry | £225 |
| Commercial Wagon | £220 |
| Commercial Van | £230 |

Chevrolet Ton Trucks

| | |
|---|---|
| TON TRUCK CHASSIS | £200 |
| Lorry with Sides | £235 |
| Drop Side Lorry | £240 |
| Plain Top Lorry | £230 |
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**New Late Apple, Elsie Grant.**—Considerable interest has been aroused through the publication in this journal of details relative to the new late "Elsie Grant," a Yates-Rokewood hybrid which is stated to be better than either parent. The raiser, Mr. T. H. Grant of Beaconsfield, (Vic.), gives added details by advertisement in this issue, and notifies that as no trees are for sale, scions for grafting are obtainable at 10/- per dozen, (6/- per half doz.) posted. Mr. Grant, who is an experienced fruitgrower writes,—"Every grower should test this promising variety."

### Toot-true.

A tutor who tooted a flute,
Tried to teach two young tutors to toot,
Said the two to the tutor,
"Is it harder to toot, or
To tutor two tutors to toot?"

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**We do not hold ourselves responsible for the views expressed by our correspondents.**

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E. H. WRAGG, Secretary and Advertising Manager.

**Tasmanian Director:** HON. L. M. SHOOBRIDGE, M.L.C.

## TO ASSIST EMPIRE TRADE.

### £1,000,000 Grant by British Government.

The following is a summary of the recommendations of the Economic Committee in utilising the British Government's annual grant of £1,000,000:—

To conduct a campaign to promote consumption of Empire goods in U.K. by identifying such goods in retail shops, and by publicity and education.

To vest enforcement of the marketing law in one of the existing Departments of State.

To appoint an executive commission to supervise expenditure of grant, which would also induce trade in Empire produce.

That the commission should allocate 65 per cent. of the annual grant for promotion of trade in Empire produce, 15 per cent. for research, and the remaining 20 per cent. for certain other schemes, including the promotion of fruitgrowing in tropical parts of the Empire and the carriage of pedigree stock from the Mother Country to overseas parts of the Empire.

It was recommended that special attention be given to industries not covered by the preferential tariff.

The research section of the report was of special interest to Australian growers. It advocated the setting aside of £150,000 to begin with for research.

Should the recommendations of the committee be adopted, there is no doubt that Australia will be greatly benefited.

## THE "BROWN HEART" DECISION.

### Australia is Surprised at the London Judgment.

Concerning the recent decision of the London Court in regard to the case of brown heart in the "Northumberland" shipment of Apples, whereby judgment was given in favor of the shipping company, the opinion of the Hon. L. M. Shoobridge, M.L.C., of Newtown, Tas., will no doubt be of interest. He considers that the brown heart had been caused by defective ventilation, and not from any inherent defect in the fruit.

Mr. J. P. Piggot, M.H.A. (Manager of the Pt. Huon Fruitgrowers' Co-op. Association Ltd.) was also astonished at the decision given. In his opinion, brown heart is caused through the presence of excessive carbon dioxide, and as the fruit shipped by the "Northumberland" was shipped direct from the orchards to the ship, and could not come into contact with excess carbon dioxide until it was placed in the hold of the ship, the shipping company was responsible for the trouble.

## FRUIT FOR EXPORT.

### Report by Tasmanian Agent-General.

### Payment of Freights in London.

A report is to hand from the Agent-General in London eulogising the quality of the Tasmanian fruit. Although it was adversely criticised in some quarters, this, he states, was unfounded, and he hoped the reputation of the fruit would not be damaged by carelessness at this end.

Concerning regularity of shipments (the report continues) it was doubtful whether this could be accomplished, as it was impossible to avoid overlapping in arrivals, or to guard against gluts. So much depended on circumstances other than the mere arrival of large shipments.

Other matters commanding more attention were the questions of freight imposed by the shipping companies, and the method of payment. At present the latter did not seem disposed to reduce the freight, although strong representations had been made, but it was hoped that before long they would agree to the freight being paid in London, or that at least a part should be paid there and a part in Australia.

## EXPORT FROM NEW ZEALAND.

### Government Guarantees 1d. per lb.

The N.Z. Minister for Agriculture (Hon. W. Nosworthy) stated in the House recently that it had been decided to renew the guarantee of 1d. a lb. on Apples exported for the 1925-6. season. The maximum number this year was applicable up to 350,000 cases, as against 300,000 cases last year. It had also been decided to give a similar guarantee for 5,500 cases of Pears, 5,000 of which would be of known good-keeping varieties, and 500 experimental.

South Australian citrus growers are urging their Railway Commissioners to instal Sun-kist Orange juice extractors on railway stations as is being done in Victoria.

# New Zealand.

## News and Notes. ∴ Seasonable Items.

(By Avro.)

Note.—In view of the fact that the "Fruit World," though published on the first of each month, will not actually reach New Zealand for some little time thereafter, these notes are written with the intention of covering a period of roughly from the 20th of September until the 20th October. Future notes will be written with the same object in view, in order that they may be of service to growers.

CULTIVATION in the orchard is one of the most important operations during spring and early summer; the proper time for this work being when the trees are making growth. Work the ground to a fine tilth by soil cultivation at various times from now until the New Year.

Early in September trees in many orchards will be ready for grafting, and this work should be done with the scions which have been selected during the pruning operations. The particular method of grafting depends to a very great extent on the age of tree to be grafted, and on trees from three years upwards, it is usual to adopt the system known as bark grafting. Other methods commonly used in New Zealand are cleft grafting, and whip and tongue.

Spraying must not be neglected, as green and black aphis are often very troublesome during the spring. The most effective spray for dealing with them will be found in Black Leaf 40, applied at a strength of 1 in 800. Follow with a second spraying about a fortnight later. All through the season growers must be prepared to systematically spray their trees, in order to keep down various pests.

Where the laterals or the heads of leaders of citrus trees have been cut back or damaged by frost, the affected areas should be removed by cutting to a prominent bud or lateral. If any trouble has been experienced with brown rot, great care should be exercised in removing and destroying all the damaged wood and fruit. The necessity for deeply burying the diseased fruit or destroying it by burning is now generally recognised, and cannot be too strongly impressed on growers.

### In the Garden.

During the month of October the Potato crop can be planted, also Peas, Beans, Carrots, Beet, etc. Asparagus and Rhubarb should receive applications of fertilisers, and older beds of Rhubarb can be lifted and replanted on well prepared new ground. Ground should now be prepared for the sowing out of Kumera plants in November, and such land should be given very careful preparation. It is not, of course, advisable to plant out Tomato plants too early, but in some parts of New Zealand these can be planted out during October. The actual time will have to be gauged by growers according to the district in which they live. Cape Gooseberries should be ready to put out, and during fine weather the Strawberry beds should be cleaned up.

## EXPORT TO SOUTH AMERICA.

### Good Prices Realised.

Last year several shipments of Apples were made to South America from New Zealand, and the prices which were received were so satisfactory that growers hoped that this season would see a further demand from that part of the world. It was realised, of course, that the market is open for a comparatively short period, and that competition from America is keen, but nevertheless growers sent forward a big consignment at the commencement of the season, some 15,500 cases being shipped.

Something in the nature of a bombshell was thrown amongst the trade when it was announced that shipments from New Zealand would not be allowed into South America, because of the fruit fly in the Dominion. As the fruit fly is so far quite unknown here, the suggestion was made that the hand of America was behind the prohibition, and immediate steps were taken to rectify the false position which had arisen. The attention of the Argentine Consul at Wellington was drawn to the unfairness of the position, and eventually the fruit was allowed to land. As practically all the fruit that would, under ordinary circumstances, have been shipped away, was included in the one vessel, fruitgrowers did not suffer.

Strenuous endeavours will, however, be made to find out how the prohibition came to be placed on New Zealand fruit, and it is hoped that next season the market will be open to Apples from the Dominion. Had the fruit not been allowed into South America, it would have been taken on to England, as it was all in cool storage, but growers would then have been heavy losers, for many of the varieties which are suited to the South American trade do not meet with the favor of English buyers.

The shipment which went abroad on the "Port Kembla" opened up in good condition, and was sold at Buenos Aires at satisfactory prices. Delicious Apples brought up to 22/2 per case, whole other varieties brought 19/- per case.

## THE EXPORT SEASON.

### A Satisfactory Year.

The fixtures for the export season which has now closed show that less fruit has been sent out of the Dominion than last year, but as the 1924 season was a record one, the drop in the export is in no way alarming. There is no doubt that fruitgrowing in New Zealand has now become stabilised, and there is little likelihood of mushroom growth, such as took place in some districts in the past, when people with little or no experience took up fruit farms expecting to make an easy living. It having now been conclusively demonstrated that successful fruitgrowing is a highly specialised and scientific matter, the only ones planting additional areas are genuine fruitgrowers.

A total of 237,356 cases were exported this year, as against 243,429 cases sent away last year. Of this number the greater portion naturally went to England, only 16,675 cases being sent to South America. The South American market is something of an unknown quantity to growers at present. Last year purchases were made on a f.o.b. basis, but this year it was left to the growers to make consignments, this accounting for the drop.

The reports to hand from England regarding the export Apples are of a most encouraging nature, and show that the greater portion has arrived in first-class condition. The prices have been uniformly good throughout, and the season should, for that reason, prove a profitable one to the growers. It was proposed to place a ban this year on London Pippins, which require very careful handling.

Growers made very strong representations on the subject, with the result that the ban was removed, and the prices which have been received during the season show that the policy has been entirely justified. The variety is one which is extremely popular on the London market.

An interesting feature of the season was that this is the first occasion on which a direct shipment of Apples was made to Bradford, from New Zealand. A consignment of fifty cases was taken by a Bradford merchant, and the demand experienced, and the prices received, show that there are possibilities for our fruit apart from the London market. The New Zealand and Australian Apples have apparently held their own throughout the season in London, and despite the fact that South Africa is exporting a larger quantity of fruit each season, the prices for the New Zealand fruit have remained uniformly good.

## A POPULAR OFFICER.

One of the most popular officers of the Department of Agriculture's Horticultural Division is Mr. W. H. Rice, who was recently transferred from the Hawke's Bay district to Auckland. During the time he was located in Hawke's Bay, Mr. Rice rendered very useful service to the fruitgrowers as orchard inspector, and his popularity is a sterling tribute to the co-operation between the growers and the Departmental officers. At the annual meeting of the Hawke's Bay Fruitgrowers' Association, the following resolution was passed:—

"That the fruitgrowers of Hawke's Bay desire to place on record their very great appreciation of the services of Mr. W. H. Rice to the industry in this district. While much regretting his departure, they join in wishing him every success, and all prosperity in his new sphere of labor. They trust that the Department of Agriculture will see that his services are not wholly lost to Hawke's Bay, but that he may be given the opportunity of supervising experiments and developing and unifying the North Island's fruit export."

## AROUND THE DOMINION.

### Notes from Here and There.

**A very fine record** was achieved at Grassmere, Hawke's Bay, during the season on an orchard owned by Mr. E. H. Williams. A total of 902 cases of "fancy" grade Apples were taken from an acre and three-quarter block of Munroe's, while 14 cases of "extra fancy" were taken from the same block for exhibition at Wembley. The return from the whole block averaged 82 per cent. of "fancy" grade—a record seldom equalled in the Dominion.

**A "Horticultural Week"** will be held at Dunedin during the coming summer in connection with the N.Z. and South Seas Exhibition, which opens in November. The chairman of the executive in charge of the arrangements is Mr. D. Tannock, who for many years has been in charge of the reserves of the city. The week will take the form of a horticultural display unique in the annals of horticulture in this country, and it is hoped that in addition to the other exhibits there will be a display of fruit representative of the activities of the whole of New Zealand. Although the matter has not yet been definitely settled, it is probable that the week will be held in January.

**The question of export** now looms large in the majority of the fruit-producing districts in New Zealand, and within the next season or two another district will have to consider the question of exporting part of their Apple crop, this district being Poverty Bay. During the season which has just closed, more Apples were produced than could be consumed locally, and the fruitgrowers will therefore have to look further afield. Owing to isolation and cost of transport, it is impossible for growers to compete with other districts on the New Zealand market, and it will therefore be necessary for them to export to England. Possibly this export will be commenced next season.

**One of the varieties** which thrives best in Poverty Bay is the Ballarat seedling, which was first introduced to the district close on fifty years ago by Mr. Bull, who brought trees across with him when he came from Victoria. These early importations were the foundation of practically all the early orchards in Gisborne, and in addition to the Apple trees, Mr. Bull brought across many varieties of Peaches, all of which did well in the country of their adoption. A trial shipment of fifty cases of Ballarat seedling Apples was made last year to England, and although these are not of the fancy grade, for which the greatest demand exists, they sold at keen prices.

**The necessity for constant manuring** in orchard practice was stressed at Marlborough recently by the orchard inspector, Mr. A. Davey. It was pointed out to growers that the continual crops of fruit were bound to deplete the soil, no matter how good it was, and that manuring was the only manner in which some of the constituents could be returned to the soil. Growers present were impressed with the soundness of the arguments brought forward, and expressed the hope that further investigational work would be carried out with a view to deciding on the best mixtures for various localities.

**Handle Fruit Gently!** At a conference held at Dunedin recently growers heartily endorsed a remit which suggested that legislation should be introduced to make it an offence to roughly handle fruit at either railheads or ports. While the intention is laudable and worthy of the support of all fruitgrowers, it would be a somewhat difficult matter to persuade any Government to bring down the necessary legislation, and once introduced it would be still more difficult to enforce.

**The final shipment** of Apples from Otago for the season landed in England early in July, the fruit coming out of the ship in splendid order.

## LEMONS IN NEW ZEALAND.

### Duty, 1d. per lb.

In response to allegations that Dominion Lemons are inferior to imported Lemons, the Auckland Fruitgrowers' Council defends the quality of the local article. Hundreds of acres of Lemons are now coming into bearing, sufficient to supply the Dominion and open an export trade.

The Minister for Customs (Hon. W. Downie Stewart) announced that the duty of 1d. a lb. on Lemons is imposed by the tariff, and cannot be altered without an amendment of the law. It was not proposed by the Government to increase the duty.

A conference of the New Zealand Institute of Horticulture is being held at any early date. The President is Dr. L. Cockayne, F.R.S., and the Secretary, Mr. George A. Green, of 16 Aratonga-avenue, One Tree Hill, Auckland, N.Z.

**During the recent interstate shipping strike,** fifty Tasmanian orchardists loaded their own fruit, and the fruit agents in Sydney did the unloading, thus saving what would have been a heavy loss.

# TASMANIA.

Fruit Exports. ∴ Oversea Markets.
Advisory Board Meetings Items of Interest.

*(By Our Correspondent.)*

THE WARM SUNNY period experienced during mid-August has had an appreciable effect on the different fruits, and indications point to an early blossoming of most varieties.

Apricots, Cherries, and the earlier kinds of Plums are in full flower, and promise for satisfactory crops. Owing to the prevalence of shot-hole fungus last season, most growers are thoroughly treating their Apricots with the Bordeaux and Burgundy mixtures.

**Following the successful results experienced by the use of an early Bordeaux spray in the control of Black Spot, the majority of growers are making arrangements for this application to be made as soon as the varieties reach the "delayed dormant" stage.** A few of the earlier blossoming Pears have been treated this month, and spraying of the main varieties of Apples and Pears will commence early in September.

### Overseas Fruit Exports.

The whole industry was much astonished at the remarkable verdict delivered in the "Northumberland" case, recently heard in London, in respect to claims against the owners for the damaged portion of the 1921 Apple cargo. Fruitgrowers generally believed that the investigations carried out by the scientists of the Cambridge Low Temperature Station had finally disposed of the convenient

**"inherent vice" theory**

advanced by the responsible authorities in the initial cases of damaged cargoes.

The most extraordinary feature of the case is that whilst complete and indisputable evidence is available as to the cause of "brown heart," the term "inherent vice" is still enveloped with all the mystery of the dark ages.

The humour of the situation is apparent when one considers that following the bad results experienced in respect to "brown heart" in 1921-22, the majority of vessels

**overhauled their refrigeration**

systems and made alterations ensuring more adequate ventilation. **Since then "brown heart" has almost disappeared.** Possibly the 1921 consignments were bewitched!

Tasmanian fruitgrowers are not disposed to abandon their claims on such a verdict. A meeting of the State Fruit Advisory Board has recently been held, and, in the event of no appeal being lodged, action will be taken to fight the case on a different basis.

### Shipping Strike.

Once more an arrangement has been effected between the seamen and the shipping companies, and trade is now proceeding again in its customary channels.

The strike came at a particularly unfortunate time for fruitgrowers, as the bulk of the medium keeping Apple varieties, which were held in cold store, had to be marketed. At one period fruitgrowers were faced with a big loss. Large consignments had been withdrawn from cold store, and were delayed for a number of days on the wharves awaiting shipment, when the vessels were ultimately "tied up."

Under the circumstances, a volunteer crew was made available on the s.s. "Laranah," and 50 orchardists came up from the fruit districts and loaded the cargo, arrangements being made for unloading to be done in Sydney by the fruit agents. This was carried out satisfactorily, the fruitgrowers were saved from a direct loss, and obtained good prices for their fruit.

Owing to the suspension of services, it was also found necessary to cancel all arrangements for the fruit trophy at the Brisbane Show.

### Continental Fruit Markets.

The satisfactory prices received for consignments forwarded to Continental markets will have a stimulating effect on this trade during the coming season.

It is understood that arrangements are on hand for one or two direct boats to Hamburg next year. Before the war, a valuable trade existed with this port, and prices were generally satisfactory for consignments.

In consequence of the peculiar tariff existing in Belgium, Australian Apples are only allowed to enter under a heavy and restrictive duty. This is imposed on Apples which are exported in containers under two bushels in capacity, or wrapped fruit. Such packages are termed "pomme de luxe," and whilst they may represent the premier quality fruit in the continental season, the measure effectively restricts the importation of Australian Apples during the period when the markets are not receiving fruit grown in countries situated in the northern hemisphere. This tariff acts very unfairly to the Australian producer, especially as the risks of carriage and extra freight almost preclude the export of Apples in barrels.

### Currant Borer.

Small fruit growers are becoming alarmed at the spread of the Currant borer (Aegeria tipuliformis) amongst Black Currant plantations.

Appearing in Northern Tasmania some ten or twelve years ago, the pest has now spread to the Southern districts, and is at present menacing the large areas laid down with this fruit in the Sandfly district.

Control is difficult, the only practical remedy being to destroy the affected bushes. **Unfortunately, owing to the divided control existing in the local councils and fruit boards in respect to such pests, no concerted action is taken to eradicate or control them.** It is time the Tasmanian fruit industry was placed on a different basis, and some better scheme adopted than that existing under the present ineffectual Codlin Moth Act.

### Department of Agriculture.

The Minister of Agriculture (Hon. James Belton) has received an intimation from the Victorian Cabinet that the services of Dr. Cameron, the Director of Agriculture, will be made available to report and advise as to the re-organisation of the Tasmanian Department. It is understood that Dr. Cameron will visit this State early in October for this purpose.

### Australian Fruit Council.

Advices have been received from the Secretary of the Australian Fruit Council that a meeting will be held on September 15th at Anzac House, Melbourne. This meeting is long overdue, as there are a number of important matters which have been awaiting attention, and require adjustment before the next fruit season.

The Tasmanian representatives will be as follows:—Messrs. Neil Campbell, M.H.A.; J. P. Piggott, M.H.A.; Sir Henry Jones, Mr. V. J. Skinner, and the State Fruit Expert and Secretary, Mr. P. H. Thomas.

## STATE ADVISORY BOARD.

A MEETING of the State Fruit Advisory Board was held at Hobart on August 4th. There were present:—Messrs. A. Davies, Neil Campbell, M.H.A., H. Hamilton,

B. J. Pearsall, J. H. Astell, E. H. Thompson, F. Cole, V. Skinner, W. H. Calvert, J. P. Piggott, M.H.A., and Secretary (P. H. Thomas).

A vote of sympathy was passed to Mr. F. Walker in his recent bereavement.

Mr. Neil Campbell, M.H.A., was elected Chairman for the ensuing year.

Votes of appreciation to Mr. A. Davies, ex-chairman, and Messrs. F. Walker, V. J. Shoobridge, and T. J. Eddington were recorded.

**Office-Bearers.**.— It was decided that the Board's representatives on the Australian Fruit Council be as follows:—Sir H. Jones (canners), V. Skinner (dried fruits), J. P. Piggott (exporters), Neil Campbell (fresh fruits). That these members, together with A. Davies and B. J. Pearsall, also constitute the Executive. Mr. P. H. Thomas was re-elected Secretary. Carried.

**Expenses of Members.**—On the motion of Messrs. Astell and Calvert, it was decided that expenses be allowed to all members of the Board when travelling to meetings.

**Damaged Fruit Cargoes.**—It was decided to cable the Agent-General, asking if an appeal was being lodged against the reported judicial decision in the "Northumberland" case.

On the motion of Messrs. Davies and Piggott, it was resolved to ask the Agent-General to make available the published evidence in respect to the case, and to summarise the main particulars of evidence.

At the request of members, the ex-Agent-General (Sir Alfred Ashbolt) and Mr. E. Ross (Messrs. Jones and Co.) addressed the meeting in respect to the position of fruitgrowers in view of the recent judicial decision.

The Chairman, on behalf of the Board, expressed appreciation of their attendance, and thanked them for the valuable advice accorded.

It was decided to consult the Crown Law Department on the subject, and failing assistance there, to engage a private firm of solicitors; further, to arrange with the National Fruit Federation to renew claims for damage and prevent them from lapsing under the Statute of Limitations.

The matter was then referred to the Australian Fruit Council, with a view to obtaining the co-operation of the other exporting States.

**Empire Marketing Scheme.**—Mr. A. Davies moved, and Mr. Calvert seconded: "That report by the committee appointed, viz., (Messrs. Campbell, Thompson, Davies and Piggott) to frame a letter in reply to the proposals received through the Hon. the Premier from the British Empire Producers' Association for the organisation and better marketing of Empire products was received and adopted, the secretary being requested to forward this, together with a covering letter to the Hon. the Premier for transmittance to the Federal authorities." Carried.

**Conference Resolutions.**—The secretary detailed the action that had been taken in respect to the resolutions passed at Launceston and Hobart. After consideration, the resolution concerning the annual retirement of a number of members was considered impracticable.

Correspondence in respect to Sydney and Brisbane Committee of Agents was held over.

**Sugar Supplies.**—It was decided that the resolution in respect to sugar supplies be transmitted to the Chairman of the Queensland Sugar Board for consideration.

## PORT HUON CO-OPERATIVE.

### Annual Report.

The directors' report and balance-sheet of the Port Huon Fruitgrowers' Co-operative Association Ltd., Hobart, for 12 months ending 30th June, 1925, is to hand. This was presented at the eighth annual meeting of shareholders, held on the 20th August, at Hobart. A brief summary is as follows:—

During the past season 1,290,000 bushels of Apples, and 37,000 bushels of Pears were shipped to English ports from Tasmania as follows:—992,000 bushels to London, 225,000 bushels to Liverpool, and 110,000 to Hull. Had these shipments been distributed more evenly, better results would have been obtained. If growers desired to obtain wider distribution this could only be brought about by the majority of the space requirements being booked up with the Port Huon Co-op. Most of the space at the present time was booked by growers with firms who represented shipping interests, which prevented the Association from effectively bringing about essential alterations in the carrying and distribution of fruit overseas. Through the efforts of the Association, growers had, during the past season, the privilege (for the first time) of refusing to ship on any particular line of boats if they so desired. During the year, two of the Directors, Messrs. F. Cole and W. H. Calvert, returned from England with much valuable information regarding Home markets.

The report went on to state that the Inter-State fruit market was again exceptionally good. The Committee of Agents in Sydney was assisting in every way possible to advance the interests of the growers, and supervision in regard to the unloading had been again carried on at the expense of the Committee.

Mr. David West, a former director, was appointed to the vacant seat on the Board of Directors, which occurred through the lamented death of the late Mr. D. C. H. Calvert. Mr. W. H. Calvert was appointed Chairman. The remaining directors were Messrs. F. Cole, J. Combes, A. Dickson, P. A. Feil, C. W. Frost, B. J. Pearsall and Luke Williams.

The profit and loss account shows earnings commissions, etc., £8,372/4/9, expenses £8,451/8/4, loss £79/3/7; there was also a loss of £30/13/11 on the pulp account, making the loss £109/17/6. However, by bringing forward the credit balance of £230/2/4 from the previous year, a net profit of £120/4/10 is shown. The trading account shows sales of pulp "fresh kept" and jam £21,731, stocks on hand £4,638. On the expenditure side are shown advances to growers £12,414/16/10, factory wages £8,309, general expenses £1,205. The net loss is shown at £30/13/11.

The balance-sheet shows paid-up capital £18,025, reserves £5,765, advances against English fruit consignments £53,548. The assets include freehold and leasehold land, machinery, etc., £16,645, stocks on hand £7,639, members' debit balances £43,845.

### Diamond Creek, (Vic.)

We have received a booklet, entitled, "Diamond Creek," from the local Property Owners' League. This booklet is well illustrated, and very descriptive of this beautiful district. The township is situated about 17 miles from Melbourne, is connected by one of the finest roads in Victoria, and is a most popular tourist resort. Every year, thousands of people travel by car and train to view the glorious blaze of Wattle stretching for miles along the banks of the creek, and in all directions are to be seen large orchards, ever changing in appearance, but always beautiful as the seasons come and go. Diamond Creek possesses a Cool Store, Recreation and Show Grounds, a Mechanics' Hall (accommodating about 400 people), a State school, and churches of several denominations.

A meeting of the Australian Fruit Council will be held at Anzac House, Melbourne, on September 15th next.

# Why Do Blossoms Fail to Set?

## Influences of Pollination, Soil Nutrition, Spraying and Weather Conditions.

### Essentials for Fruit Setting are—Adequate Manure and Water.

By Rodney Fowler, Manager Government Experiment Orchard, Blackwood, S. Aust.

WE are very much in the dark as to why so many blossoms do not set fruit, why some trees bloom heavily and yet do not set fruit, and why, after the fruit has apparently set, so many fall off just when they appear to have set nicely. How often during the blossoming time, when perhaps the trees are white with bloom, one hears the remark that there is going to be a "bumper" crop. "Look at the blossom," and though it is quite true that one cannot have fruit without first having the bloom, it certainly does not always follow that a heavy bloom means a heavy crop. Sometimes quite the reverse happens, a heavy bloom resulting in a light crop, while a moderate bloom will sometimes produce a heavy crop. In the following paper I have tried to condense the work carried out by Arthur J. Heinicke, of the Connell University Agricultural Experiment Station, as recorded in Bulletin 393, and claim no originality for the subject matter.

Observations have shown that normally less than 10 per cent. of Apple blossoms which open in spring produce fruit. Many of the flowers are lost a few days after the petals fall, and a large number of the partially developed fruits are thrown off during the next few weeks, and a large drop usually takes place when the fruits are from one to three centimetres in diameter—spoken of in America as the "June drop." This latter drop may or may not be beneficial to the fruitgrower.

If more than 5 per cent. to 10 per cent. of the flowers on a tree producing a heavy crop set fruit, a large quantity of fruits must be removed by hand to enable the remainder to attain a commercial size and color; but, on the other hand, as before stated, Apple trees frequently produce an abundance of flowers, but little or no fruit is harvested from them, as if any sets it falls off later on. When this happens we generally blame the climatic conditions, and though in some instances heavy loss is due to frost, wind, rain, and hail, or to disease and insect pests, these factors do not always account for the heavy drop or non-setting of fruits, as this often occurs even in the absence of such destructive agents. This is particularly noticeable in a collection such as we have in this Experimental Orchard, where sometimes it is found that trees of different varieties, all carrying heavy bloom and all subject to the same climatic conditions, set with very varied results. All do not set heavy crops, though all may bloom heavily.

The failure of a large proportion of Apple blossoms to set and the heavy loss of partially developed fruits are frequently associated with **poor pollination and lack of fertilisation,** and the fact that a large number of the fruits that fall have fewer seeds to the fruit than those which remain on the trees indicates that the development of seeds is an important factor in fruit setting; still many flowers set fruit even though poorly pollinated, and many fruits remain on the trees and develop normally even though they have relatively few seeds. We have a Pear in this orchard that is apparently seedless, and, though I have cut numbers of fruits from this tree, every year it shows the same characteristics and I have not yet discovered a fruit carrying any seeds at all.

Obviously, then, there are other factors, apart altogether from the destructive agents previously mentioned and in addition to poor pollination and lack of fertilisation, which influence the abscission of flowers and partially developed fruits of the Apple, and it was with the object of studying such factors that a most elaborate series of observations and experiments have been carried out during the past three seasons by Professor Heinicke and his staff.

That the matters under discussion have exercised the minds of fruitgrowers and investigators for many years is proved by the writings of Professor Langley in 1729, and he then attributed the drop to lack of nourishment, the trees having "too great abundance of wood covered with beautiful blossoms." Professor Hendrick in 1908 expressed the opinion that unfavorable weather during blossoming time is the predominating factor in the loss of fruit crops, as besides the obvious damage done by wind, hail, and frost, cloudiness, wind, and low temperatures during blossoming time offer unfavorable conditions for pollination and subsequent fertilisation.

Professor Waite (1894) observed that many varieties of Apples and Pears are self-fertile. Fruits resulting from cross-pollination were found to be larger and finer specimens than those resulting from self-pollination. The former contained large, plump seeds, and the latter small, flattened. It was also noted that the ability of a tree to set fruit either with its own pollen or with that from another tree was affected by its state of nutrition and its general environment.

Since Waite's work the need of cross-pollination to insure a set of fruit has received considerable attention. While most critics or workers on this question recognise, as does Waite, that there are other factors aside from self-sterility which cause

the falling of blossoms and immature fruits, all of them seem inclined to attach special importance to the

**necessity of cross-pollination**

for many varieties of fruits. It is pointed out that the structure of the flowers in many cases is such as to prohibit self-pollination, whereas many flowers have special modifications that seem to favor cross-pollination.

Other workers, as, for instance, Professor Ewert, while not ignoring the question of pollination, have directed special attention to the importance of **nutrition** as a factor in fruit setting.

Ewert assumes that fruit formation on a tree occurs under competition for organic food. Such food, he thinks, has a greater tendency to flow to those fruits that contain seeds which in turn are the result of cross-pollination. Consequently, seedless fruits developing on the same tree with fruits containing seeds are handicapped, and if the food supply proves to be inadequate, such fruits will eventually fall off.

Ewert believes that the question of the need for cross-pollination in fruit setting has been overemphasised, and he is of the opinion that

**cold, rainy weather**

at blooming time is unfavorable to the setting of fruit, not so much because it hinders fertilisation as because such conditions are generally harmful to the development of the young fruit.

A number of other general causes, such as poor soil, ploughing during blooming time, drought, and the like, are occasionally held accountable for crop failure after blossoms have been produced.

The observations and experiments recorded in the bulletin under notice were made during the course of three seasons, 1914 to 1916 inclusive; for the most part the work was done at the Experiment Station Orchard at Ithaca, and the trees under observation were between 40 and 50 years old. The trees had been pruned heavily some years before, and since then they have received ordinary care in the matter of cultivation, pruning, and spraying.

It should also be mentioned that the natural drop only is considered, not the drop caused by insects or disease. It was found that in a

**well-sprayed orchard**

the drop resulting from scab and codlin is practically negligible. Examination of hundreds of flowers and small fruits showed that only about 1 per cent. were affected by scab, but where unfavorable weather prevented effective spraying, scab infection on the stems of flowers and young fruits caused a heavy drop.

I cannot attempt to go into details concerning all the experiments tried, but will touch on just a few of the most interesting, such as, for instance:—

**1.—Relation Between Amount of Bloom and Set of Fruit.**

In the spring of 1916 most of the mature trees produced heavy bloom, though individual limbs on many trees bore relatively few flowers. A number of such limbs were labelled and corresponding limbs with a heavy bloom, but otherwise like the former, that is, having a similar exposure and arising from the same parent limb, were also labelled.

After the main drop the total number of flower bearing spurs on each limb was obtained, together with the number of spurs that had set fruit, and it was found from the data recorded that limbs with light bloom taken from four different trees set an average of 73 per cent. of fruit, while limbs with heavy bloom from the same trees set only an average of 14 per cent.

**2.—Set of Fruits on Limbs with Large Leaves and on Limbs with Small Leaves.**

It is not uncommon to find individual limbs with leaves noticeably smaller than those on the remaining limbs of the same tree, and in 1916 such small-leaved limbs which had produced a heavy bloom were labelled, and limbs with normal leaves, but otherwise similar, were likewise labelled, and from the recorded data it was found that vigorous limbs with large leaves set an average of 41 per cent., while weak limbs with small leaves set an average of only 15 per cent., in other words the percentage of flower-bearing spurs that set fruit was greater on the branches with large leaves than on the branches with small leaves.

**3.—Set of Fruit as Influenced by the Location of the Spur on the Twig Growth of Different Years.**

Observations were made to determine whether flower-bearing spurs arising from wood of different ages would be more likely to set fruit in some cases than others, and it was found that there were a great many factors governing this aspect of the matter, but it was also found that apparently the age of the spur alone, at least from the second to the fifth year, has little influence on its fruitfulness.

**4.—Relation Between Number of Flowers to the Spur and the Ability of the Spur to Set Fruit.**

The number of flowers on an Apple spur varies from two to seven, and casual observations seemed to indicate that there is a relation between the number of flowers produced by the spur and its ability to bear fruit. Records were made of the number of flowers borne in spurs that lost all fruit at the first drop, on those that held fruit until the next drop, and on those that finally set fruit, and it was found that spurs losing all fruits at the first drop have an average number of flowers to the spur of 4.45, spurs holding fruit till the next drop have an average of 5.02, and spurs that finally set fruit have an average of 5.74, so that spurs that lose all flowers and fruits during the first drop have the smallest average number of flowers, and those that finally set have the largest number of flowers.

### 5.—Relation Between Water Supply, Leaf Area, and Pushing of Buds.

It is generally understood that an abundant supply of water is a factor in producing large leaves, and this was demonstrated by a simple experiment, and it was also shown that the large, plump buds, which produce the heavy spurs, are more abundantly supplied with water than the smaller buds, and in this connection it seems reasonable to assume that limbs producing a heavy bloom will supply less sap to the individual spur than similar limbs which produce a light bloom. The spurs from the former limbs are not so likely to set fruit as those from the latter limbs.

From the various experiments and records taken 42 facts and observations are contained in the summary, but I will only draw attention to a few of them.

1. From two-fifths to four-fifths of the total number of flowers are lost during the early drop.

2. The proportion of spurs that set fruit after the first drop varies considerably on different trees of the same variety, and on different limbs of the same tree.

3. Only 3 per cent. to 7 per cent. of the total number of flowers finally develop into fruit.

4. From one-sixth to one-third of the flower-bearing spurs finally set fruit.

5. A larger proportion of spurs set fruit on limbs that have produced a relatively light bloom than on limbs that have produced a full bloom.

6. Spurs of limbs with large leaves are more likely to set fruit than spurs on limbs with small leaves.

7. The spurs near the end of a season's growth, or just before a zone of weak buds, are the most likely to set fruit. As a rule the spurs in the terminal half of a given season's growth set more abundantly than spurs in the basal part.

8. Spurs that produce many flowers are more likely to set fruit than those producing a few flowers.

9. The water supply is a factor in increasing the size of leaves. More water passes to vigorous than to weak buds.

10. The Apples that fall in the early stages of their development have fewer seeds on the average than the Apples that remain on the trees, though the reverse is sometimes the case.

11. Unsymmetrical fruits resulting from imperfect fertilisation are more frequent in fruit that has dropped than in fruit that remains on the tree.

The results presented emphasise the importance of vigor, more especially the vigor of the individual spur, as a factor in fruit setting. Seeds appear to be valuable because they supplement the forces that bring sap to the fruit.

The observations and experiments so far recorded justify the tentative conclusion that unfavorable conditions of nutrition and water supply are among the basic factors which cause the normal drop of flowers and partially developed fruits of the Apple. All factors that have a direct or an indirect influence on nutrition and water supply of the flower and fruit, such as pollination, weather, cultivation, and the like, are of importance. Fruit development, however, is possible without cross-pollination, and even under relatively unfavorable climatic conditions, so long as the young fruit has an abundant supply of water and of a readily available plant food.

[A resume of some American experiments by Rodney Fowler, and read before the Blackwood branch of the Agricultural Bureau, republished from the South Australian Journal of Agriculture.]

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## THE FRUITGROWERS' CHARTER.

**As drawn up by Mr. F. J. Churches, of Lancaster, Victoria.**

**"Bounties on Export."**

Whereas suggestions have been made in many quarters for a new (fruitgrowers), political party, and strong protests have been made against the high tariffs, Sugar embargo, inequitable Arbitration Court awards, it is of interest to publish hereunder what has been termed the Fruitgrowers' Charter by Mr. F. J. Churches, of Lancaster, Victoria, a director of the Kyabram Co-operative Cannery,—thus:—

**Motto.**—The right to prosper.

**Preamble.**—With a sincere belief in the wisdom of protecting and developing the fruit-growing industry, and our earnest desire to make it one of the foremost in contributing to the wealth of Australia, the fruitgrowers here set forth some of the essential requirements to contribute to the progress of the industry.

We seek the co-operation of members of Parliament, fruitgrowers and business men.

**Platform:—**

(1) The acceptance of the principle of granting bounties on export, to return to the fruitgrowers at least the cost of production.

(2) The encouragement of country industries by:—

(a) Loans on easier terms and lower rates of interest.

(b) Cheaper freights (by rail and sea).

(c) Erection of workmen's homes at cheap rentals, by Shire Councils or Closer Settlement Boards.

**Boards of Control:—**

(3) Composed of fruitgrowers and business men, with legal powers to enforce their decisions.

(4) Federal and State financial guarantee for marketing primary produce and developing country industries.

---

The Western District sportsman felt off color, so he went to the doctor. "How's the eyesight?" he was asked. "Good as ever—eyes like a hawk," said the patient brusquely.

"H'm—sleeping well?"

"Sleep like a bat."

"How's the appetite? Eating well?"

"Eat like a fox, sir."

"Look here," said the medical man, "the fellow you want to see is the vet."

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Keep in touch with what the "other fellow" is doing. You may learn something.

# New South Wales.

Interesting News and Notes.

## FRUITGROWING AT ORANGE.

### Successful Organisation.

The annual meeting of the Orange Fruitgrowers' Association and the Orange Fruitgrowers' Forwarding Company were held on July 30th.

Mr. Lewis Thompson (Hon. Sec.) presented the annual report, which reflected great credit on the association for the work accomplished during the year. The membership now stands at 251.

The report stated that the hire of tarpaulins for covering case timber has been reduced from 20/- to 3/6. The minimum weight of 2 tons for "A Class" rate on case timber has been removed, and in future "A Class" rate will be charged for at actual weight.

Owing to the contribution of funds by a number of members towards the defence of the A.W.U. claims, the Asscciation was successful in getting a reduction in the award. The Secretary advised that this claim would be renewed next year, and he stressed the necessity for every member to contribute to the fund, stating that it would cost less to donate £1 to the defence fund than pay their employees 10/- per week extra.

As the result of a request to the Government to prohibit the entry into the district of fruit affected with fruit fly, or from any orchard where fly is known to exist, a law to this effect will come into operation on 1st October next.

Although an effort was made to remove the duty on Cherries imported in brine, this was successfully resisted. As there are over 500 tons imported annually, it can be readily seen how disastrous this would have been to Cherry growers.

The Council decided to withdraw from the Deciduous Fruitgrowers' Association, as the work was overlapping.

Owing to the activities of the Association in dealing with seed Peas and fruit cases, the prices of these commodities have been reduced and kept within bounds.

A co-operative society has been formed, and in future the trading portion of the Association will be carried on by the Society. A block of land with a street frontage of 400 feet has been purchased, and negotiations are being made for the construction of a railway siding to serve as a future store and cool store. During the year about 100 tons of fruit were consigned by rail to Brisbane.

The auditors' report was also received, showing an amount of £137/7/11, after paying capitation fees and working expenses, £89/15/11. Sales of orchardists' requisites during the period amounted to £7,747 19/5. The gross profit earned amounted to £266/7/2, equalling 3.44 per cent. on turnover. The total working expenses amounted to £56/10/2, leaving a net profit for the year of £209/17/-, which has been transferred to Accumulated Funds Account.

### Orange Fruitgrowers' Forwarding Company.

The Secretary of the Forwarding Company also submitted his report for the period 15th December, 1924, to 17th July, 1925. It showed a net profit of £2,448/9/8, after charging £100/4/11, being wages and expenses in handling and unloading empty cases. As this amount is to be proportionately deducted from growers who forwarded fruit, this increases the figure of net profit to £2,548/14/7, being equal to 31.57 per cent. of the amount of freight paid by growers.

The fact should not be overlooked that the firm handled the cartage scheme without making any profit therefrom. As in the past, growers were only charged with the exact cost of same to the Forwarding Co., and received direct the benefit of reductions in rates. The tonnage despatched from Orange yards (including all consignments from Canobolas, Borenore and Cargo Road) was over 4,030 tons, of which 3,322 tons were fruit and the balance Peas.

## MURRUMBIDGEE IRRIGATION AREAS.

### Leeton, 18 August, 1925.

By Our Correspondent.

**Agricultural Instruction.**—Recently the Area was visited by Mr. Broadfoot, the pome expert of the Agricultural Department. The pruning demonstrations and simple but effective explanations won admiration by the settlers.

It is a thousand pities that the settlers do not turn up in larger numbers at these demonstrations. The Agricultural Department is doing its part well, but the settlers by their non-attendance are not backing up the Department. Needless to say, if the Department were lax in its attentions, there would be the complaints from the settlers. The loose screw wants tightening up in some way or other.

Mr. Broadfoot paid a high compliment to the "Granny Smith" Apple grown on the Area, and also the Pears. The appearance of red spider and its eradification were well demonstrated by this officer.

Another Fruit Growers' Association has been started at the Yanco end of the area, and the settlers in that portion of the scheme are certainly live men. The manner in which they approached the Minister for Agriculture on his business visit here a little time ago, showed sensible practical effort. Some of the growers who are already members of the older Fruit Growers' Association, look with disfavour on the new organisation. I am not inclined to do so, especially seeing that the newly formed body is composed of men of grit and shrewdness. These men are not out to wreck but to improve the status of the fruitgrower here, and they will, in my opinion, succeed. One of the bugbears of this Area has been the want of support to organisation work by the settlers, in all classes of agricultural production. When, therefore, something appears in the form of resurrection it should not be altogether unwelcome.

**Agents and Packers.**—These have been having a busy time in the disposal of Oranges and Lemons. Attwood and Sons have completed one export order for ten thousand cases, and are working up new ground

**Leeton Cannery.**—By his usual tact, Mr. Brady is succeeding in getting rid of the stocks of canned fruits at the cannery. One order for 70,000 cases is being executed, and there is more to follow. The unfortunate public announcement some time ago by "the Federal Authority" grossly exaggerating the stocks of canned fruits on hand, kept the merchants from buying, as they hoped by holding off, that the alleged heavy stocks would be shunted out at reduced prices. Although this statement has been damaging to the canneries, stocks are getting reasonably reduced.

The Leeton cannery by the commencement of next season will be clear of all its stocks, which of course will be a very satisfactory position.

By the way, in reference to this order of 70,000 cases I have just mentioned, the Irrigation Commission is arranging for four special trains to convey the freight to Sydney, which will save in the neighbourhood of nine shillings per ton against the ordinary miscellaneous rate. Sensible idea! Then there is an item of **publicity** in the idea also, for it is intended, with the consent of the Railway Commissioners, to have calico posters outside the trucks advertising Leeton canned fruits.

The Irrigation Commission by such actions is just on the right path, and it only wants to keep stepping out in the same direction, and with the result of a happy augury for the future of the Cannery and fruit settlers.

**Griffith Cannery.**—Ardent spirits are at work in the efforts of the Griffith settlers in the direction of a cannery for Griffith. The fruit settlers there appraise the commercial ability of the Irrigation Commission in no mean degree. In effect they say to it "you finance the cannery and take the risks until the time arrives for the settlers to run the affair by co-operative effort."

There is in this an exhibition of wise Scotch caution, and men with such shrewd sense cannot be looked upon as the class of person that would rush in where angels feared to tread.

Better, therefore, let the Irrigation Commission lead the way as it has done at the Leeton Cannery. There will want to be a thorough co-ordination between the Leeton and Griffith Canneries, for marketing and internal factory purposes, and it would be well to see a man like John Brady placed as superintendent of the new factory until at least it could feel its feet, and co-ordination was secured. Some advising counsel in this direction is absolutely necessary, especially if we take into account past experiences and failures on the Settlement.


**TASMANIA**

We are the Leading Australian Firm of
FRESH FRUIT EXPORTERS, JAM MANUFACTURERS (IXL Brand), FRUIT CANNERS, HOP FACTORS (owning the largest cool stores for this purpose in the Commonwealth).
Supplies of Corrugated Strawboard, Genuine Sulphite Paper, Nails and best Packing Materials available at all times.
Sole Distributing Agents for the Southern Tasmanian Associated Manufacturers of Evaporated (dried) Apples.

Agents for—
Federal Steam Navigation Co. Ltd., Scottish Shire Line of Steamers, Osaka Shosen Kaisha, London Assurance Corporation.

Correspondence Invited.

**H. JONES & CO. LTD.,**
HOBART



COVENT GARDEN, LONDON

**Ridley, Houlding & CO.,**

**Large Receivers of Australian Fruits.**

Solicit Consignments of

**Apples, Pears, &c.,**

Best market prices and prompt account sales returned.
Correspondence invited.
Representative in Victoria
THE
International Fruit & Mercantile Co.,
410 Flinders Lane, Melbourne
MURDOCH BROS., Hobart


### Partly Developed Farms Now Available.

The Minister for Agriculture, Mr. W. F. Dunn, (who is also chairman of the Water Conservation and Irrigation Commission), intimates that there are at the present time a number of farms available for general application on the Murrumbidgee Irrigation Area.

He points out that these farms should be attractive to intending settlers and land-seekers generally, inasmuch as a considerable amount of developmental work has been completed, and as payment for Crown improvements is spread over a number of years it is possible for new holders to carry on and complete the development with less capital than would be required on an entirely new farm.

Particulars of the farms may be obtained from the Irrigation Commission Office, Union House, 247 George Street, Sydney, or from the offices of the Commission either at Leeton or Griffith.

### CURLWAA IRRIGATION AREA.

During the three months ended the 30th June, very mild weather has been experienced in this part of the State. The rainfall for the period was 198 points in May, and 251 points in June—a total of 349 points, whilst very few frosts were experienced.

It is a little early yet to have definite information as to the marketing of the Dried Fruits. A considerable improvement is noticeable, especially with regard to Sultanas.

The citrus crop is very heavy, and the prospects are considered excellent.

The Delta Packing Company, which has been operating for some time at Curlwaa, has been registered as the "Curlwaa Co-operative Fruit Society" under the management of local settlers. A

**new packing shed**

has been erected where the Society is handling a large portion of the local citrus crop. The determined efforts of the settlers on this Area to combat pests and disease have met with good results, as the absence of both is very noticeable, all citrus fruits, with few exceptions, being clean and healthy. A considerable amount of new citrus plantings is also in evidence.


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The **lining of the channels** with concrete is being carried on, and necessary repairs have been carried out on several parts of the main channel, the receiving basin, and the pumping machinery.

On the 4th May, Mr. G. H. Tolley, who has been in control of the Area as Engineer and Manager since October, 1916, retired, and the management is now in the hands of Mr. J. W. Searcy, Resident Engineer of the Coomcalla Settlement.

# Practical Orchard Experiences

## Ploughing - Manuring - Spraying

### Seasonable Hints from New South Wales

**Ploughing.**

WHERE autumn ploughing has been carried out and the ground has not become compacted again from any cause, it can be left till towards the end of spring. Where no autumn ploughing has been done, or where cover crops have been sown, ploughing should have been well advanced in August. This applies to both.

**citrus and deciduous**

orchards. It gives any growth, whether cover crop or weeds, time to rot before the spring, and provides a supply of plant-food for the trees when they require it. But not only this; it allows the soil to absorb the rains that fall during the latter part of the winter, and checks evaporation of moisture already absorbed by the soil.

Even in the wetter climates of the tableland in N.S.W. (states the "Agricultural Gazette"), a dry period is often experienced during the spring, when the soil dries out with surprising rapidity, especially if the land is carrying a heavy growth of weeds or cover crop. The trees then suffer from partial starvation at a critical period, and if a dry summer follows, which cannot be forefold, the position is still worse. In some of the later districts of high, regular rainfall it may be safe to postpone this work some weeks, but generally speaking it is better to err on the early side than on the late side.

**Manuring.**

Except for the soluble nitrogenous fertilisers, such as sulphate of ammonia or nitrate of soda, manuring can be carried out during the spring ploughing. Bonedust and bone and offal take some time to decay and become available to the plants, and though superphosphate is soluble it soon reverts to a less soluble form, and there is little danger of either it or potash fertilisers being lost in the drainage water from the soil. That it pays to

**manure citrus trees**

is universally recognised in this State. On rich, deep soil it may not be necessary for the first few years after planting, but later when the trees have borne a few heavy crops, fertilisers are necessary to obtain mixiumum returns.

With **deciduous fruits generally,** and with Apples and Pears especially, there is not nearly the same certainty of manuring paying on all classes of soil. On our very poor, light, sandstone soils the manuring of even young Apple trees is necessary to obtain sufficient growth to build up a tree of reasonable size, and later to maintain sufficent vigour in the tree when it is cropping. Undoubtedly in these cases stable manure gives the most satisfactory results. An instance is also known where old Apple trees on rich, deep soil were restored to vigour and profitable cropping by heavy applications of stable manure. It seems feasible that in such cases the results obtained are to some extent indirect, in that the stable manure has improved the condition for soil bacteria, and has also improved the capacity of the soil for retaining moisture. At the departmental orchards at Bathurst and Glen Innes, the first on a granite country and the latter on a heavy basalt soil, experiments in manuring of Apples have completely failed to show any result; at the latter place the experiment is being continued.

It is interesting to note that similar results have been observed in the United States of America, and it will not be out of place to quote here from Bulletin No. 516, published by the New York Agricultural Experiment Station under the title "Twenty-five Years of Fertilisers in a New York Apple Orchard," by U. P. Hedrick and H. B. Tukey. The summary says:—

> These are the results of twenty-five years of fertilisers in a New York Apple orchard under a system of clean cultivation and non-leguminous cover cropping.
>
> The orchard, twenty-eight years old, is located on a Dunkirk clay loam, slightly heavier than the best New York Apple land. The variety is Rome Beauty budded on Ben Davis. The trees were selected with strict attention to uniformity.
>
> The experiment consists of twelve plats of five trees each. Four plats receive no treatment and the remaining eight receive four different treatments in duplicates.
>
> Fertilisers have been applied since the fall of 1899 at the following rates per acre:—
>
> Plats 1 and 9—11,200 pounds of stable manure.
> Plats 2 and 8—340 pounds of acid phosphate.
> Plats 6 and 10—340 pounds of acid phosphate, 196 pounds of muriate of potash.
> Plats 4 and 12—100 pounds of nitrate of soda, 346 pounds of dried blood, 340 pounds of acid phosphate, 196 pounds of muriate of potash.
> Plats 3, 5, 7 and 11—Checks, no treatment
>
> A non-leguminous cover crop has been sown annually and the orchard kept in good tilth.
>
> Records have been kept of growth, size, and yield of fruit, and of such miscellaneous factors as colour of foliage and quality, maturity, keeping quality, and colour of fruit.
>
> The application of fertilisers has resulted in no consistent differences either in total yield of fruit, size, colour, date of maturity, flavour, texture, or keeping quality.
>
> There has been a tendency for the trees to produce the same proportion of fruit grading 2½ inches and above, in spite of differences in yield, growth, or fertiliser applications.
>
> One of the most reliable indexes of tree performance is trunk diameter. In this measurement all plat treatments approach a common average, fluctuating slightly about the check as a common centre. The trees receiving manure average 0.08 of an inch smaller than those receiving no fertiliser, while those receiving a complete fertiliser are 0.06 of an inch larger.
>
> The plats which have the large trees have also been the high producing plats as well as the plats leading in yield of fruit 2½ inches and above.
>
> Measurements of growth made in 1899, before any fertilisers had been applied, indicated differences in vigour of trees. The ranking of the plats at that time approaches closely the ranking in 1923. The treatments which have given the largest yields of fruit ranging 2½ inches and above, and the biggest trees, were, by actual measurement, the most vigorous twenty-five years ago, before an ounce of fertiliser had been applied. The various fertiliser treatments have failed to alter the direction in which the plats were headed before they received these different treatments.
>
> High or low individual tree performance has not been a matter of bud variation. The import-

ance, however, of securing the best and most vigorous trees possible for orchard planting is emphasised.

The trend of this experiment has not been appreciably altered by the thirteen additional harvests since 1910.

The practical outcome of the fertiliser test is that in the average western New York Apple orchard that is well cultivated, properly drained, and sufficiently supplied with organic matter and humus by means of a cover crop, commercial fertilisers are not needed.

Besides dealing with the results from the twenty-five years' experiments, a summary of reports from other States regarding fertiliser applications in Apple orchards is given in this bulletin:—

In the first place fertiliser studies on the Pacific coast, namely, in the State of Washington, have indicated that no form of commercial fertilisers are of value, except when used in orchards the growth of which is unsatisfactory or in which cover crops have been established [this probably means a permanent cover crop.] In Kansas the beneficial effect of manure has been ascribed to the preservation of moisture during periods of drought, while in the Ozark regions fertilisers have increased the set of fruit on poor leachy soils and have assisted in carrying the crop through, though on fertile soils the response has not been large. From Indiana it has been reported that nitrate of soda has little effect in orchards under cultivation. West Virginia has been led to the conclusion that the average well-cared for orchard is not apt to respond to fertilisers, while her neighbour, Virginia, has reported that cultural treatments are more effective than fertiliser applications. Pennsylvania has stated that "trees under cultivation have not shown a profitable return from the addition of fertilisers when a good cover crop was grown." New Hampshire has found no cash returns from money invested in fertilisers in a Baldwin Apple orchard under cultivation, and results of fertiliser treatments in England have indicated no favourable response to manurial dressings.

On the other hand nitrogen has been responsible for increased yields in Delaware, though increased applications have not been commensurate with resulting yields. The combination of cover crops and nitrate has resulted in increased yields in Oregon, and in Ohio, on land low in fertility, nitrogenous fertilisers have produced a marked effect. Fertilisation in Michigan "has not yet made good trees into super trees, but it has made poor trees good or kept good trees from becoming poor."

The Bulletin concludes the matter as affecting Apples thus:—

"In general it can be said from these results reported from various sections of the country, contradictory as some of them may seem, that fertilisers are, in the main, held to be of value on thin or worn-out land, or in orchards which are making weak growth. At the same time, well-cared for orchards on good land, under proper methods of clean cultivation and cover cropping, show little favourable response to fertiliser applications.

"If sod orchards were to be considered in this connection, it would be apparent at once that there is hardly a single exception to the general rule that sod orchards respond markedly to nitrogenous fertilisers."

In the quoted remarks the term manure is used to indicate stable or farmyard manure in distinction from commercial fertilisers.

### Spraying for Peach Leaf Curl.

Though repeated departmental tests, both inland and on the tablelands, have resulted in control of this disease by one thorough application of either of these fungicides while the trees were dormant, some growers, particularly in the northern tablelands, have not had satisfactory results with one application, and find it better to give an application of winter strength lime-sulphur when the trees are dormant, followed by Bordeaux mixture 6-4-50 when the blossom buds are first showing colour. Of course, this second application is not advisable except in districts where previous experience has shown it to be necessary. Where one dormant application of lime-sulphur has been found satisfactory it is preferable to use lime-sulphur rather than Bordeaux mixture, as the former also acts as a check to San Jose scale.

### Green Peach Aphis.

This is a very difficult pest to deal with after the trees are in foliage, as the green aphis hide between the young folded leaves, and thus miss the spray. Spraying with oil at the end of winter, the latter part of July or early in August (except for early-blossoming varieties already mentioned) has on previous occasions given wonderful results in controlling this pest on some of the departmental orchards. Last season the miscible oil spray was not as consistently satisfactory as previously, and it would be advisable this season to use miscible spray oil rather stronger, say, 1 to 20 of water by volume instead of 1 to 25.

Where it is necessary to spray for leaf curl with lime-sulphur or Bordeaux mixture, they should be applied first and the miscible spray oil later, timing the first spray so that the oil will be applied before the buds are much swollen.

### Cherry Aphis.

This pest has only lately become troublesome in this State, and hence no field tests have been carried out for its control. The Tasmanian Department of Agriculture recommends winter-strength oil sprays or lime-sulphur in the early spring, when the covering scale of buds is loosening slightly. The Victorian Department of Agriculture last year found that miscible oil spray of 1 to 20 of water by volume applied in August before the trees commenced to shoot was effective.

### San Jose Scale.

Some growers get better results with oil and others better results with lime-sulphur in dealing with this pest. That this is so is no more peculiar than other eccentricities that often become apparent, especially during spraying experiments.

On the whole, the oil sprays have proved the more efficient in control of San Jose in the departmental orchards. When the oil sprays are used they should be applied for safety before the buds are much swollen, using winter strength. If lime-sulphur is depended on, be sure it is full winter strength by testing the stock solution with a hydrometer and diluting according to the table. Better results are generally obtained by delaying application till the buds are well swollen. See that every part of the tree gets a good coating.

### Woolly Aphis.

Last year the Victorian Department of Agriculture tested and found the following spray very effective for woolly aphis:—Red oil, 1 gallon; nicotine sulphate 40 per cent., 1 pint; soap, 2 lb.; water, 80 gallons. The soap was boiled in 1 gallon of water till dissolved, the 1 gallon of red oil added and thoroughly mixed, 1 pint of nicotine sulphate added, and the three mixed for a few minutes, when the whole was made up to 80 gallons with water. Trees sprayed on 1st May were still clean of aphis when examined on 20th November. The use of this spray is recommended when the trees are dormant.

It is well worth while Apple-growers giving this mixture a trial on some badly-affected Apple trees, using oil at winter strength alone, and 1 pint of nicotine sulphate 40 per cent. to 80 gallons water alone on other badly-affected trees of the same variety, to act as checks. Though it is to be hoped that the Victorian Department's mixture will go on giving equally good control, one cannot make sure on one season's results. Both nicotine sulphate 40 per cent. and tobacco wash combined with lime-sulphur, when tested by the New South Wales Department ten years ago, kept trees clear of woolly aphis for longer than either the same strength nicotine sulphate or tobacco alone, but in a testing the following season the combination gave no more lasting effect than the two washes applied singly.

Since that time we know of instances where the combination has given the same result as when first tried. At the same time, in districts where lime-sulphur is used as a fungicide from "spur-burst" to "pinking stage," it is a good practice to combine either tobacco wash or nicotine sulphate 40 per cent. with the lime-sulphur for woolly aphis, care being taken to keep the right proportion of each spray to the total liquid of the combination. We have found that nicotine sulphate 40 per cent. or tobacco wash applied as just stated keeps the trees clear of aphis just as long as those sprayed with miscible spray oil earlier, and one operation is saved.

Caustic soda 1 lb., nicotine sulphate 40 per cent. ¾ pint, water 100 gallons, applied before the trees start in the spring, is another woolly aphis spray that some growers have found very effective and which is worth trying. Leaflets on lime-sulphur, Bordeaux mixture, and Peach leaf curl can be obtained by N.S.W. readers free on application to the Department of Agriculture, and a bulletin on "Spraying" for 1s. 1d., post free.

**Warning.**

Growers who have received the woolly aphis parasite Aphelinus mali, should be careful not to apply any contact insecticide (such as is used for aphis or scale), to the protected trees on which they liberated the parasite.

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South Australian growers have arrived at a basis for an orchard registration Act, and are approaching their Premier accordingly.

In Victoria, it is understood, a Bill is being drafted: there is a strong request from growers to peruse the proposed Bill before it goes to Cabinet.

## Cultural News and Notes.

### GROWERS' EXPERIENCES FROM VARIOUS STATES.

#### Cross-Fertilisation of Apples.

#### Containers for Jams.

Messrs. Robinson Bros., of Tongala East (Vic.), write to the Editor under date, August 17th:—

Some time ago we supplied information re cross-fertilisation of "Dunn's" Apples in this district. We have now proved that "Jonathans" and "King David's" give excellent results, but "Gravensteins" are of no use for the purpose.

We are sending a cutting from an English weekly journal. As you are no doubt aware, there is a most decided prejudice against tin containers for jam in England, and such prejudice has prevented the expansion of Australia's export trade. We think it might be worth while to use the information contained in the cutting as an advertisement in favor of Australian jams.

The cutting referred to reads as follows:—

Not very long ago (states a correspondent in the "Weekly Telegraph," May 23, 1925) I received a rather alarming pamphlet, suggesting that cancer was largely caused by the use of glass containers for jams, etc. The argument was that the method of making the jars left fine particles of glass, which got incorporated with the contents. Secondly, that in all jam factories there must be many breakages in which the glass is mixed up with the jam and cannot entirely be removed. I regarded the pamphlet as too alarmist for publication.

The following news paragraph, however, suggests that there is an uncomfortable amount of evidence of danger of the kind referred to:—

Out of fourteen samples of foodstuffs supplied to the Public Analyst, it was stated at Stockton Town Council, ten had been found to contain particles of glass. A sample of lemonade showed a few minute fragments. Fish and meat paste contained particles, and they were present also in raspberry and apple jam, relish, apple jelly, black currant jam, and sauce. Samples of relish, pickles, and sauce contained by far the largest amount of glass. Mr. J. Allison said it must be regarded with a certain degree of alarm that some of the particles were almost a quarter of an inch long.

#### Spraying: Manuring.

Mr. H. J. Willoughby, Tyabb (Vic.) writes:—

The chief orchard pests to be dealt with here are Black Spot and Codlin Moth, this district being chiefly concerned with Apples. Woolly Aphis is rather prevalent this year, and many orchardists are making special efforts to subdue it.

My **spraying** operations involve a winter spraying with Red Oil for Rome Beauties, and where trees require a general clean up. Black Spot spray of Bordeaux 6-4-50 (half strength in the case of Jonathans), or of Lime-Sulphur, 1 in 30, just before pink of buds is showing.

If weather conditions are favorable to development of fungus, a further application of a fungicide can be made with the first Arsenate of Lead spray by adding to it a gallon of Lime-Sulphur in each 50 gallons, or bluestone at the rate of 5 ozs. in 80 gallons (for Jonathans, 4 ozs.).

Varieties most susceptible to Spot, such as Gravensteins, receive additional sprayings for same. The most effective spray mixture for Woolly Aphis appears to be Nicotine Sulphate and Red Oil.

In **manuring**, the most satisfactory results have been obtained with Muriate of Potash, Sulphate of Ammonia (or Nitrate of Soda), and Superphosphate. A good dressing is 1½ lb. or 2 lb. each of the two former, and 2 lb. super to each tree. These can be applied all together, when ploughing, or the nitrates left out and run in later. A part of the orchard is sown with field peas each year to provide humus and nitrogen.

* * *

### QUANTONG.

From the Quantong Fruitgrowers' Association, the following interesting information is to hand:—

Our **spring spraying programme** is generally bluestone - soda, 6-9-50 strength for curl leaf, when buds are moving, followed immediately with oil and nicotine sulphate for aphis. The strength used being—Oil, 1 gall.; N.S., 1 pint; soap, 1 lb.; water, 80 galls. This combination proves very effective.

**Apples** are also sprayed with this mixture during this month for Woolly Aphis and most satisfactory results have been achieved.

**Apricots** in this district are fairly free from fungoids, and an occasional spraying of lime-sulphur, 1-10, keeps them clean, whilst the oil and N.S. combination is being used now to destroy olive scale.

After a heavy season in all varieties, it is hardly to be expected that

crops will be as full for the coming season, though stoned fruit and Pears are showing well at present. Peaches and Apricots should be in full bloom by the end of August.

Spring ploughing has commenced, and

**the first tractor**

has been introduced on Mr. Hughes' property. It will, no doubt, be but the fore-runner of many others in this settlement.

The marketing of the past season's fruit has been again successfully carried out by the manager of our Association, Mr. C. H. Jost, and but for interference by the dried fruits Control Board, the year's work would have proved one of the best for Quantong.

The quantities and brands of manures vary a little amongst growers here, "Federal" being invariably used, and their complete No. 1 being the most popular. Dressings of from 5 to 10 cwts. per acre are given, which is generally ploughed in during the spring time, whilst occasional cover crops are also used.

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### South Australia.

Mr. H. N. Wicks, Balhannah, S.A., writes under date August 10th:—

**Spring Spraying** in this District.—At present oil is being freely used to combat Woolly Aphis. Most growers prefer to put one spray on as soon as the leaves fall in the autumn, to be followed by a second application about this time of year.

Red Spider, which is already showing up in patches here, is of course properly caught with the oil sprays at this season of the year, and no further sprayings are usually necessary for this pest. If no oil is used, Lime-Sulphur just before the bursting of the buds is an excellent cure for Red Spider, and it is noticeable that Apple trees which have been treated with Lime-Sulphur for Black Spot during the pinking stage rarely if ever show any traces of Red Spider, proving the efficiency of this spray for this particular pest.

Lime-Sulphur has proved, in this district, to be a very efficient spray against Black Spot on the Jonathan variety, and for years I have used nothing else on this variety, with perfect success. This spray seems to give the Apple a better appearance than does the Bordeaux, and certainly there is no russeting. When spot is bad, Lime-Sulphur is usually added to the first lead spray to the extent of about three gallons to the hundred of lead spray.

Care must be used, however, and on no account must the mixture be allowed to stand for any length of time before application. King David and London are also kept clean from spot in the same manner as Jonathan, but all the other varieties get their dose of Bordeaux, and in the case of Romes, two doses are sometimes necessary, but only in very bad seasons.

Usually one dose of **properly mixed** Bordeaux is quite sufficient, but it is astonishing how many growers use this spray, being in total ignorance of the condition of the solution when mixed.

Testing with litmus paper is the best and surest way to be sure of your spray, after, of course, being sure that the copper sulphate has a high percentage of copper (about 99 per cent.) can usually be obtained. Duchesse Pears usually demand two fungicides, never less, and then it is hard work to get them clean in a dirty year.

**Manuring.** — Green manuring is practised here, and is becoming more popular each season, Peas being mostly used. Usually a fairly strong dressing of super. (according to the soil) is sown with the Peas.

Potash is being used more freely now that it can be secured at a better price, and a good dressing is about three pounds per tree of sulphate. In this district, with a heavy rainfall, muriate is being tried. Both these are applied together with about 2 lbs. of super per tree, and then harrowed in during the early winter, making a total dressing of combined manure of 5 lbs. per tree.

The season is proving to be one of the mildest experienced for some years as regards rainfall, but the cold has been intense. The trees are looking extremely promising, and if appearances count for anything, this district at least should be favored with a good crop of both Apples and Plums.

* * *

Information to hand from Mr. J. B. Randell, Gumeracha, S.A., is as follows:—

**Spring Spraying Programme.**—Purpose, to control Fusicladium of Apple and Pear, and Codlin Moth. I use Bordeaux and Lime-Sulphur for the former, and have not found much difference in the efficacy of these. If the season is conducive to the development of the spores, it is necessary to spray at pretty frequent intervals (ten days or so apart), and even then it does a certain amount of injury in some seasons.

Lime-Sulphur (as sent out by the manufacturers) has the advantage of being ready for use direct from the container; I have had some burning, however, when the application has been made in bright sunshine. Bordeaux is somewhat more troublesome to mix, and if done carelessly, or if the lime is old or inferior, there is danger of a good deal of russeting, particularly with some varieties. On the whole, I prefer Lime-Sulphur, as I have found it equally efficacious with bluestone as a fungicide, and it has the additional virtue of assisting in the eradication of some insect pests (Woolly Aphis and Red Spider).

For the purpose of combating the Codlin Moth pest, there is but one remedy that is regarded as worth consideration, that being, of course, Arsenate of Lead. One finds some diversity of opinion with regard to the application of what is known as the "calyx" spray.

On that question I have no doubt at all; and believe it is one of, if not the most, important of all for this purpose. Later applications are necessary from time to time, if a reasonably clean crop is to be ensured.

The frequency will depend somewhat on seasonal conditions, and in this regard, as in most others connected with the production of clean fruit, the grower who watches his trees, store, the weather, and nature generally, most closely, and using his intelligence, adapts himself and his activities accordingly, is, other things being equal, the one who at the end of the season, is most likely to have the best results; incidentally, perhaps, he may find himself classified as one of those lucky fellows upon whom fortune always seems to smile.

**Manuring.**—Until the present season I have not manured in any systematic manner. The soils here are good, strong loams overlying deep clay sub-soil in most instances, and the little I have done hitherto has not given any conclusive results. I am, however, setting out a plan this season for testing the matter more thoroughly, and hope in a few years' time to be able to form a definite opinion on this phase of orchard practice here.

**District Notes.**—The outlook in this district (where, of course, the chief line is Apples), points to a heavy blossoming; if atmospheric conditions, etc., are favourable, there should be a good crop. The season so far has been remarkable for the small rainfall; the official record show about seven inches below the average; unless good spring rains fall, there will be a danger of the orchards suffering during the summer months from a shortage of sub-soil moisture, particularly where cultivation is not as thorough as it should be.

Pruning is nearly finished in most orchards, and the spring ploughing and spraying will have to be put in

hand before long, particularly if the bright days which have characterised the last week or so should continue.

Those who grow summer crops of **Potatoes and Tomatoes** are busy preparing the soil for these, and small areas of the former for a spring crop either have been, or soon will be, put in; the risk of late frosts makes this crop somewhat unpopular.

### Tasmania.

Mr. S. J. Kellaway, of Woodstock, Huon, Tasmania, gives his experiences as follows.

In Tasmania, orchardists spray principally for insect pests and fungoid diseases. Unfortunately there is no known preparation which will effectually control both. Insect pests sprayed with certain mixtures can be eradicated, or at any rate, reduced to such an extent that the injury they do is almost negligible.

On the other hand, fungoid diseases are much more difficult to deal with, particularly what is known as black spot. In the case of insects, once they are reduced to a minimum, they are easily kept under. Fungus, black spot in particular, may be little in evidence one season, but in the following year the fruit may be completely ruined by this disease, unless every precaution is taken to check it.

Of course, weather conditions will not allow it, but continuous spraying would be necessary if a separate mixture or spray were used to combat each different pest and disease, and the cost would be heavy.

In order to obtain the most satisfactory result at a minimum cost, **I use mixed or combination sprays.**

Special attention must be given, and provision made to cope with black spot and codlin moth grub.

My experience is, that all other pests affecting Tasmanian orchards can be fairly well controlled by operations against these two things, without any extra spraying or additional cost, except the price of material used by using combination sprays.

The first spray, not absolutely necessary, but very desirable in a humid climate, if a clean crop is expected, should be Bordeaux mixture, 6-4-40, with spreader added, applied just as the leaf tips begin to show. If time is limited, this spray may be dispensed with on varieties not particularly subject to spot; in fact, a fairly clean crop of all varieties may be got without it in a favorable season.

The next spray, Bordeaux again, for preference, the strength being 4-4-40, for hardy varieties, and half this strength for tender sorts—should be put on at the "pink" stage. My opinion is if both these sprays are omitted the wisest thing to do is put the pump in the shed and trust to luck so far as spot is concerned.

Next I turn my attention to the **codlin grub.** In dealing with this gentleman I use a mixture or combination spray, which **kills the grub, eradicates red spider, checks powdery mildew, and considerably reduces woolly aphis.**

This is applied after the blossoms have fallen, and as short a time as possible before the calyx closes. Most writers and experts advocate applying what is termed the "calyx" spray, just as the blossoms are falling. This, to my mind, is too soon.

During the falling of the blossoms, and for a short period after they have dropped, the petals of most Apples and Pears particularly, are spread out around the calyx, and lie flat on the surface of the fruit. Without doubt this presents a fine opportunity to get the poison into the calyx, but in so doing, patches of the fruit just outside the calyx, covered by the petals, are left unsprayed.

When the little grub arrives, he will probably crawl under the petals for protection, and bore his way into the fruit without any chance of being poisoned.

Again, experts say a big percentage of grubs enter through the calyx. I have come to the conclusion there are more entrances outside than inside the calyx, but in such close proximity to it that it is difficult to decide whether the passage is inside or out.

If spraying is delayed until the petals are upright, sufficient spray may be got into the calyx and the whole of the surface of the fruit covered, leaving the grub no safety patch.

For the calyx spray I use 2 lbs. powdered arsenate of lead, 1½ lbs. spreader, 1¼ gallons lime-sulphur to 50 gallons water. This is what I term a "combination spray." Arsenate of lead for grub and chewing insects, lime-sulphur for red spider, powdery mildew and black spot, etc.

For second grub spray, about three weeks after calyx, use same quantities of arsenate of lead, spreader and water, but only about ¾ gallon lime-sulphur. **These two applications are the most important grub sprays,** but I find it pays to spray once or twice more, according to local conditions.

In mixing lime-sulphur with arsenate of lead, there is a risk of cutting off tender varieties of fruit in the early stages of growth, but I think one is compensated for the loss that may be sustained. I do not advise mixing lead with Bordeaux, as this is very risky.

### New South Wales.

#### Woolly Aphis.

Mr. J. Buckhorn, Lavington, N.S.W., writes under date 28/7/25,—From time to time I have noticed different ideas to combat the Woolly Aphis pest, but have not seen anything in the line of my way of clearing up the Woolly, that is, the surface application of any strong smelling manure, for preference blood and bone. This serves the dual purpose of manuring and clearing up the aphis. Certainly the aphis are not killed, but they disappear very soon after the application. I trust this hint may be of assistance to "Fruit World" readers.

## TREASURY FIGURES.

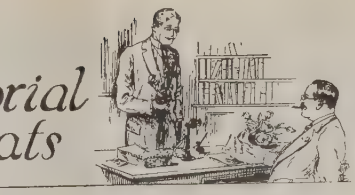
### Statement by the Federal Treasurer (Dr. Earle Page).

Some of the figures recently made public by the Federal Treasurer regarding the Budget and bounties paid to industries are as follows:—

In the 1924-25 budget £500,000 of the surplus was provided for country main roads development. The appropriation this year has been raised to £750,000. A sum of £500,000 was earmarked last year for a scheme to market primary products. Out of revenue in 1923-24, £133,477 was allocated as a fruit bounty. There was an advance of £21,100 to Port Huon (Tas.) fruitgrowers. The meat export bounty in 1923-24 was £21,259 in excess of the estimate. The telephone and telegraph services in country districts have been improved. The dried fruits industry and growers of Doradilla Grapes have been assisted by advances from the Treasury. On the three canned fruit pools the Government lost £643,000. To the growers £336,952 was paid, and to the canners £943,211.

#### Increasing Bounties.

During 1924-25 payments of bounties to producers absorbed £352,855, as follows:—Iron and steel bounty, £207,333; sulphur bounty, £47,140; wine export bounty, £28,417; canned fruit bounty, £64,876; cattle export bounty, £3,991. The sum of £200,000 was advanced against the 1925 dried fruit crop. Under the export guarantee Act, £23,000 was advanced to growers on exports of fruit. The Commonwealth is sharing with Queensland the loss on the guarantee of a fixed price for cotton.




## ORGANISATION IN THE FRUIT INDUSTRY.

WHEN commencing these lines, we had the heading "organising the fruit industry," but on quiet reflection it was evident the subject was too all-embracing. The "fruit" industry has so many branches, all practically self-contained, and each presenting differing problems that separate considerations are needed for each section. "Organisation in the fruit industry," however, suggests at once that these different sections have opportunities for organising in their own particular sphere.

The progress made in cool storage, and the satisfactory development of the export trade have stabilised the Apple growers' position. In the dried fruit and canning fruit section, the position is still obscure, because of the fact that the "Government" is the largest fruitgrower. Much as we advocate self-reliance, initiative and enterprise, it is certain that the Government must stand by the sections of the industry to which they are committed. But this will not lessen the necessity of the growers to do their part.

Citrus growers are steadily facing the task of organisation. By laying the foundations securely, and patiently erecting the edifice, success is assured. Economic laws operate, however, in this as in every other enterprise under human direction. It has taken over 30 years to bring the California Fruitgrowers' Exchange to its present eminence. Co-operation there is a real thing, the growers first organising to stardardise their packs, and control their produce, at the same time operating harmoniously with all sections of the trade and the public, winning and maintaining the goodwill of all concerned. Yet as much care and business ability are needed to-day as ever to conduct the huge business successfully.

Sir Horace Plunkett, who has been termed the "apostle of co-operation," and who has organised over a thousand agricultural co-operative societies in Ireland, told South African growers recently that the three fundamentals for success were—(1) scientific cultural methods, under State guidance, (2) the voluntary organisation of farmers for business purposes on co-operative lines, and (3) relieving the disparity between town and country attractions. He welcomed the assistance of men of proved business ability.

For solving problems in this country, long-sighted vision is necessary, much patience, constructive thinking, business ability, and the will to succeed.

At present, Australia is passing through a difficult stage as a nation. There is a tendency, in some quarters, to look to the Government, to rely on Acts of Parliament, to favor bureaucratic control. Socialism and communism, too, have reared their ugly heads. This stage will pass as do whooping cough and measles; and we believe the day is not far distant when, by patient, yet vigorous, actions of an enlightened and open-minded people, a prosperous fruit-growing and rural community will be established to the benefit of the nation and the Empire.

[Correspondence on these important topics is welcomed from our readers.]

## HORTICULTURAL RESEARCH.

### Valuable Enterprise in England.

### An Object Lesson for Australia.

It is interesting to note that new laboratories have been installed at the Experimental and Research Station, Cheshunt, Herts., England. The following details are given in a recent issue of the "Fruit, Flower and Vegetable Trades' Journal," England.

The original laboratory building consisted of two rooms together with office and dark room. Later, five Cucumber-houses, five Tomato-houses and an isolation-house were also constructed for experimental purposes, and in 1922 five new glass-houses were added. The Committee of Management is comprised of five scientists, nine growers and representatives from the County Councils of Herts., Essex, and Middlesex, making 16 members in all.

The annual expenditure of the station is approximately £6,000, which is obtained partly by grant from the Ministry of Agriculture, partly by the sale of the crop raised, and partly by subscriptions from growers and others interested.

All problems connected with the cultivation of plants under glass are investigated. The work of the station includes crop management, manurial and variety trials conducted in five Cucumber houses and ten Tomato houses, investigation of bacterial and fungus diseases, investigation of animal pests, of chemical problems such as soil sterilisation, and physiological investigations at present confined to an attempt to determine if increased crops can be obtained by artificially enriching the air with carbon dioxide.

As a result of past efforts, it is interesting to note that while the ravages of the caterpillar of the Tomato moth cost the growers in the Lea Valley £30,000 per year prior to the investigation of the control of the pest, to-day, losses due to same are negligible. It has also been found possible to destroy "White Fly" by cyaniding without injuring the Tomato plant. Towards the end of 1924 it was found that naphthalene vapors are extremely toxic to red spider in all stages from the egg to the adult, and recently this compound has been used successfully on commercial nurseries.

## ECHUCA EDITION APPRECIATED.

The Editor acknowledges having received with thanks a letter from the Honorary Secretary of the Echuca and Moama Chamber of Commerce, conveying the appreciation of the members in respect to the publicity given Echuca and district through the columns of the July issue of the "Fruit World."

### Answers to Correspondents.

**Woolly Aphis Parasite** (Aphelinus mali).—"S.L.," Scott's Creek, Vic., writes:—(1) Where is the nearest place to this district to obtain some of the Aphelinus mali? (2) When I am spraying with Red Oil or Black Leaf 40 for Woolly Aphis, would not this spray kill the parasite as well as the aphis?

**Answer** (by C. French Jr., Vic, Government Entomologist).—"S.L." needs to apply direct to the Department of Agriculture, 605 Flinders-street, Melbourne, when his application will be dealt with in its turn. On sending supplies, we advise growers not to spray the trees on which the parasites are liberated (nor those in the immediate vicinity) with oils, soaps, or tobacco sprays.

## CODLIN MOTH CONTROL.

In answer to a correspondent who raised certain questions re codlin moth control in the "Fruit World" of July last, Mr. P. H. Thomas, Tasmanian Government Fruit Expert, writes as follows:—

The majority of Tasmanian growers use the different brands of Arsenate of Lead which are employed to control the codlin moth at greater strengths than are recommended by the manufacturers, claiming that better results are obtained by such practice. Although I have not yet been able to carry out comparative tests to decide the actual economy of the stronger mixture—from field observation, my opinion is that the generally recommended strengths, viz., 1 lb. to 25 galls. (paste), and 1 lb. to 40 galls. (powder) are not sufficiently potent for our conditions.

The theory that if the fruits are thickly coated with Arsenate of Lead, their appearance would act as a deterrent to the operations of the grub, and would tend to confine its point of entry to a portion of the skin that may have received less of the arsenate, is hardly supported by experience.

Last season an orchard that was badly infested in the Huon district, was treated with a powdered arsenate at a strength of 1 lb. to 25 galls., applications being made in early November, mid-December and mid-January. The operator also added about half a pound of calcium caseinate spreader to the mixture. When sprayed the foliage and fruit were thickly coated, but such did not divert the grubs' "natural selection," as the crop was practically free from the pest. Personally, I would recommend the following strengths for mixing in this State:—

Powder (average sample).—1 lb. to 28 galls.

Paste (average sample).—1 lb. to 18 galls.

If these are carefully applied, using a pump fitted with a good agitator, and having sufficient pressure, there should be very few portions of the fruit left uncovered.

An examination of the different samples of Arsenate of Lead submitted to this Department show that some have not as good a suspensory test as others. This is an important point. A good suspension in water is necessary to ensure an even cover of arsenate upon the fruit. The use of caseinate "spreaders" will assist in this respect, and also increase the adhesiveness of the mixture.

Mr. Everard Thiele (son of Mr. A. F. Thiele, of Doncaster) writes as follows:—

**Re Codlin Moth Control.**—Personally I am sure that growers need not fear to use the quantities advocated by the various manufacturers. They will accomplish the object if spraying is carried out at the correct time and thoroughly. The main thing is thoroughness. I use the amount given by manufacturers, and have had practically over 90 per cent. clean fruit over a period of 10 years.

Some of my neighbours use the same Arsenate of Lead as I do, and increase the quantity by 2 lbs. per 100 gallons, but their results are no better than mine.

One disadvantage is that all plant life is injured to some extent by the application of arsenate, and this danger is added to by increasing the strength of the mixture.

## TO POLLINATE OHANEZ GRAPES.

Mr. H. L. Manuel, N.S.W. Government Viticulturist, writes:—

I recently received a query from you regarding inter-planting of some other variety amongst Ohanez Grapes. I replied to effect that this was not necessary, as on certain vineyards at Griffith, which are not inter-planted I have never seen better crops of this variety. On a recent visit to Leeton, however, I was informed that a grower there had noticed that Ohanez growing in proximity to a few Cornichons, which had been accidentally mixed at planting time were showing better results and improved yields to those vines further away.

There may possibly be something in cross fertilisation with the Cornichon, and I intend to follow the matter out further by watching closely the vines mentioned next cropping period.

If any grower is prepared to experiment in a vineyard, I would not recommend inter planting in individual rows, but plant alternately Ohanez and Cornichon, as this would facilitate vintaging better than where varieties were mixed in each row.

**Yates Apples.**—A subscriber at Robigana, West Tamar, Tasmania, writes:—I have a block of Yates' Apples, and would be pleased to hear of the best methods of pruning and spraying. This variety is little known here. By spraying I mean for black spot. I used lime-sulphur last season, but I have been told this is not wise on the Yates. Certainly the effect on the foliage was not good, and I am wondering if the spraying with lime-sulphur, 1 in 80, did any damage, or whether it was due to the wet season. The trees concerned are well drained and in a rich, sandy loam, and have been growing very well.

**Answer.**—(by Jas. F. Moody, Toomuc Valley Orchards, Pakenham, Vic.).—The Yates variety requires the spurs to be heavily thinned; we find the best method is to have single spurs about 3 inches long so as to get the fruit away from the main stem (avoiding large clusters), and permitting the spray being applied well behind the fruit. In other respects the Yates is pruned as for other strong growing varieties. The Yates takes spot very badly. It is difficult to advise as to spraying without knowing the conditions. Here we use Lime Sulphur 1 in 15 at greening stage, 1 in 20 at pinking, and 1 in 40 after the petals fall. Bordeaux 6.4.40, can be used at the greening stage, but lime sulphur for later sprays, as Bordeaux russets the Yates badly. The fruit requires thinning when the size of marbles. Heavy manuring is also required to bring the Apples up to size. A good clay subsoil is necessary for Yates; the Apples will run small if the subsoil is a sandy loam.

**Answer,** (by Robert E. Haysey, Narre Warren, Vic.).—Being a heavy bearer, the Yates Apple soon produces bunches of fruit spurs, and as its fruit soon has a tendency to be on the small side, it pays to start spur pruning very early. Never leave any laterals, but cut them all off short, about four buds being sufficient. Later in the year (November or December), thin your fruit, leaving not more than two Apples in a bunch.

Re spraying for Spot.—I think a lot depends on the air drainage of one's block; some situations appear to be more liable than others. Where bad, use always Bluestone for the first spray (pink or dormant), and later, when fruit forms, Lime Sulphur 1 in 40; further application depends on the season. If there is any spot about an orchard, it is usually noticed first on the Yates leaves. On first appearance of smut, cover with sulphur at once, as it is possible by leaving this work until the following day it will be too late, the damage being done.

Re Pollination.—For regular crops, one must in these days of block planting, arrange for each tree to be in direct touch with some other variety. For Yates, the best way when the varieties are planted in blocks is for the necessary trees to have growing on them blooms for pollinating pur-

poses. This is done by budding or grafting; growing for instance Rokewood as a pollinator in the blocks of Yates trees. Be careful, however, not to allow fruit to set from the blossoms of the pollinising variety. Thus, in the instance of Rokewood grafted or budded on the Yates, the young fruit on the Rokewood should be removed when the bloom is finished.

Re Manure.—Trees 19 years old are cropping well. Dress them with four to five lbs. of Muriate of Potash about August, and when the crop is heavy (in January), 2 lb. per tree of Sulphate of Ammonia. However, it is necessary to experiment before deciding which is the best manure. Green manuring is advisable; sow Peas in Autumn, ploughing under in Spring.

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## NEW SEEDLING APPLES.

"Mooroopna" sends specimens of three new seedling Apples. They are described as follows:—

No. 1.—Very like a Nickajack, but ripens in March.

No. 2.—Very like an English Blenheim Orange.

No. 3.—Carried a tremendous crop—a good keeper.

On submitting these samples to Mr. E. E. Pescott (Vic. Government Pomologist) for his opinion, he states—No. 1 was very mealy when received. It does not appear to be worth retaining, in view of the existence of so many superior varieties. No. 2 is worth further watching and report. Its aromatic aroma as well as its flavor are very fair. No. 3 seems good—color is first class, flavor second quality. Both Nos. 2 and 3 should be sent again next year, as they show good promise.

# Western Australia.

## Cultural Notes. ∴ Items of Interest.

*(By Our Correspondent)*

PROBABLY the most prominent feature, or perhaps one should say the most vexed question, before Western Australian growers at the present time is that of compulsory marketing. Ever since the introduction of the Queensland Act and the appointment of the Committee of Direction, this State has received quite a fair share of the views of advocates of compulsory marketing, and an equal amount of attention from its opponents. The present Minister for Agriculture (Hon. M. F. Troy, M.L.A.), has promised to introduce a Fruit marketing Bill in the near future, but what the provisions of that Bill will be it is difficult to say at this stage.

Quite a number of growers appear willing to condemn the measure even before it is introduced. This feeling, however, is not general, as the bulk of growers, although probably opposed to anything savoring of compulsion, are at least willing to await the Ministerial announcement before passing judgment on the proposal. And on the other hand, one feels quite safe in saying that the Minister would be the last to force an Act through without at least giving those most concerned an opportunity of expressing their views and offering suggestions.

* * *

Early in August a meeting of growers was held at Bridgetown for the purpose of discussing the Queensland Fruit Marketing Act, and the local proposal of a similar nature. Despite the fact that the features of the Bill have not yet been made known, several growers were quite enthusiastic in condemning it. A similar meeting, held at Mt. Barker, decided to fall into line with the Bridgetown suggestion to hold a joint conference, to be followed by a deputation to the Minister for Agriculture, at which the views of growers would be expressed.

**A petition of protest**

against the introduction of the Bill, at the time of writing, is being freely signed by fruitgrowers, principally in the Apple growing districts.

* * *

Considerable interest is being taken in an attempt to

**grow sub-tropical fruits**

in this State. Some time ago a large sum of money was sunk in an attempt at Banana growing on a commercial basis at Carnarvon. The site was ill chosen, however, and the heavy winds played havoc with the plantation, which was abandoned as a hopeless proposition.

Another attempt is now being made on the opposite bank of the river. This time the situation is better, as the plantation is well protected from the wind, and there is every hope of the venture proving a success.

Bananas in Perth are never below 2/- per doz. for good quality fruit, and quite frequently are retailed at 2/6. The price is too high for the general public, and if the Carnarvon plantation can supply Bananas to the metropolitan and urban consumers at a more reasonable figure, the shareholders need have no fears regarding the future.

In 1924 Mr. R. S. Sampson, M.L.A., visited Queensland, and during his visit arranged for a supply of plants to be forwarded to this State for the purpose of testing them under local conditions.

The varieties chosen included **Pineapples, Custard Apples, Mangoes, Bananas,** and others.

Quite a number made good growth, especially where conditions were favorable, and there was no danger of frost. In the case of Custard Apples good results were obtained, and a further supply has just been secured for distribution among orchardists whose holdings are considered suitable for a trial of this fruit. W.A. gets very little in the way of tropical fruits, and the result of these experiments will be awaited with interest.

* * *

Growers have a staunch friend in Mr. Frank Willmott, M.L.C., who is not afraid to voice his feelings whenever the opportunity arises. It is some time since he was awarded the D.S.O., which in this instance implies "Destroyer of State Orchards," but he has no regrets for his action on that memorable occasion. Speaking on fruitgrowing recently he expressed the opinion that small orchards on all the group settlements which are situated in suitable districts would prove a payable investment.

All suitable country in the South-West should carry small orchards, because it would prove remunerative in time, taking one year with another. He had seen quite a number of complimentary letters from Eng-

lish buyers, who expressed the hope that the growers were as satisfied with the price received for their fruit as were the buyers with the fruit.

Millionaire fruit growers are not over plentiful—in this State, at any rate—but given a fair price for one's product, there is no industry which provides a more healthful occupation, or incentive for individual effort, than fruit raising.

### September Notes.

THIS month is one of the busiest of the whole year for the fruit-grower. Ploughing, cultivating, hoeing, spraying, and grafting are the major operations requiring attention, and there are many minor ones which help to prevent the time from hanging heavily on the orchardist's hands.

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18, Stanley Street, Liverpool. (Facing Commercial Sale Rooms.)
Deansgate, Manchester.
17, Humber Street, Hull.
Southampton Docks, (Facing No. 45 Shed).
202/4, Franklin Street, New York, U.S.A.
South West House, Greenmarket Sq., Cape Town, South Africa.

Amongst the major operations mentioned, attention to Pear Scab (Venturia pirina), is one of primary importance, and to refresh the memory of those growers concerned, I recapitulate the advice given in the notes for September of last year (writes Mr. Geo. W. Wickens, Fruit Expert, in the W.A. Journal of Agriculture):—"In districts where Pear Scab (Venturia pirina), is prevalent, it is imperative that the first

**spraying with Bordeaux**

mixture—6lbs. bluestone, 4lbs. lime, and 50 gallons of water—should be applied during the pinking stage of blooming; that is, when the majority of the blossoms are showing as a pink bud, and when only a few have burst into petals. If this time of spraying is missed, any number of sprayings later in the season will not give a good result. In many districts in this State, in ordinary seasons, the pinking stage spray is all that is required, but when wet weather continues, a second spraying after the fruit has formed, becomes necessary, using the same mixture, and in abnormal seasons, even a third may be needed some time later. When this last occurs, lime sulphur, at a strength of 1 gallon in 40 gallons of water, should be used, because Bordeaux applied at that stage of the fruit's growth may cause russetting.

Should there be any difficulty in obtaining freshly burned lime, 9 lbs. of washing soda may be substituted for the 4lbs. of lime, making Burgundy Mixture instead of Bordeaux. A ready-made Bordeaux, "Schloesing's," has been used with very satisfactory results by some growers, while others have experienced burning of foliage following the application; from enquiries made, it would appear that it is advisable to test the mixture with litmus paper or a clean knife before using, and if found necessary, sufficient washing soda should be added to neutralise the burning effect of the bluestone. The proportions to use and methods of mixing "Schloesing's" are supplied by the vendors with the material.

Where **Apple trees** were affected last year with Powdery Mildew, spray with Atomic Sulphur, 1 lb. in 10 gallons of water after the blossom petals have fallen.

Spray for **Orange** Aphis during this month.

Bait regularly for fruit fly from now onwards throughout the spring and summer in every orchard in infested districts as soon as the various fruits become sufficiently ripe to serve as a depository for the eggs of the pest.

Planting of citrus trees should be completed this month.

**Graft over** all old, obsolete varieties of Pear and Apple trees to varieties which will pay for their upkeep in the orchard, but only do this if the stocks are sound and healthy; an unthrifty stock will never result in a good tree, no matter how well the grafting is done. Use the strap graft, and if not familiar with it, ask the Orchard Inspector in your district for a demonstration.

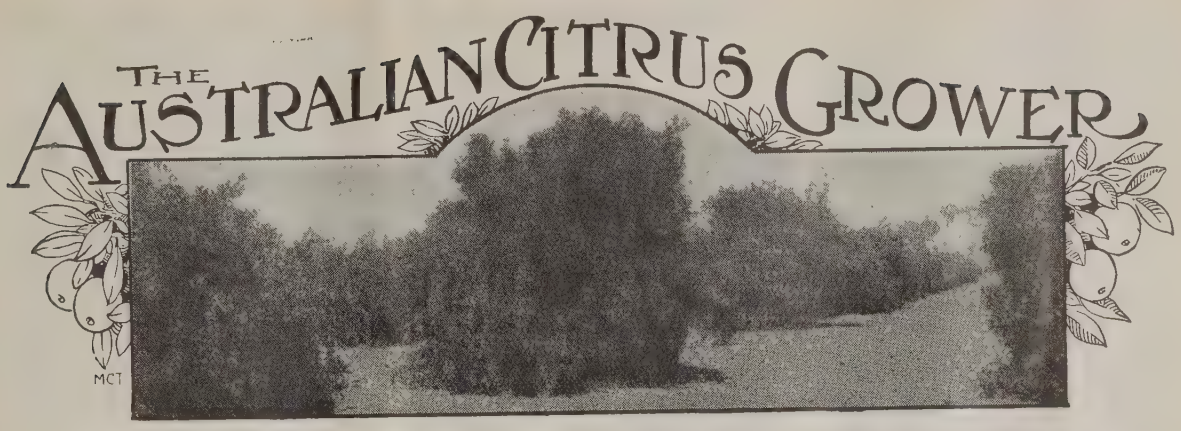
### Orchard Dusting.

**Dusting v. Spraying.**—The efficiency of dusting as compared with spraying for combating insect pests and fungus diseases in the orchard and vineyard is dealt with in the advertisement of Gibbs, Bright and Co., of Adelaide, on page 379.

Illustrations are shown of both hand and power types of dusting machines. The hand dusting gun type of machine (suspended by straps from the operator's shoulders) is stated to be an improved type, embodying many of the features of the power-operated models, and including a feed device. It is stated that as the efficiency of the ingredients is dependent on their fineness, special machinery has been installed to perform the exact work necessary. The active ingredients are flowers of sulphur and dry Bordeaux for fungus diseases, combined with fine dry arsenate of lead for insect pests: these are used where necessary in combination to combat oidium, downy mildew, black spot, codlin moth, and other pests. The Bordeaux dust mixture consists of a powder, where the Bordeaux is the active agent combined with a very fine inert powder: this is for diseases not reached by sulphur. Full information is obtainable from the firm mentioned.

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## ORGANISATION IN THE FRUIT INDUSTRY.

### Co-operation amongst Citrus Growers.

### "Compulsory Co-operation" and "Export Control" are not Wanted.

### Education is Better than Legislation.

### Interesting News and Views from Gosford, N.S.W.

The Editor, The Fruit World of Australasia,

Sir:—I have been instructed by my Committee to write and inform you that they are watching with interest your articles pointing out the necessity for co-operation in the fruit industry. No producers are more in need of organising than the fruit growers, but our committee has noted that you are making a stand against "compulsory co-operation," and are wholeheartedly with you, as it is their well considered opinion that

**compulsion is fatal**

to the true spirit of co-operation, without which no organisation of primary producers can succeed.

The experience of other countries as well as our own, has shown that education is better than legislation. The intelligent farmer knows that no Government enactments can alter the law of supply and demand, or make a co-operative company succeed if it is not well managed and gives service to the consumer by delivering an article that can be thoroughly relied on, either through grading and standardising, or by some other means. There are many ways by which a Government can assist a co-operative organisation. To mention only two that would help us considerably in this State, (1) Legislation to secure proper credit to build up organisations and marketing machinery, (2) Advertising on Government Railways and other transport services to increase consumption.

We believe that if Governments intend to spend money on systemising primary production, the money would be best used as a subsidy to existing marketing organisations that are proving beneficial.

The Gosford House was the pioneer Citrus Packing House in this State. It commenced in 1921 with 23 shareholders, and its' growth has been as follows:—

1921 season, 23 shareholders, packed 7,000 cases. (approx.)
1922 season, 55 shareholders, packed 11,000 cases.
1923 season, 120 shareholders, packed 40,000 cases.
1924 season, 170 shareholders, packed 81,511 cases.
(Est.) 1925 season, 200 shareholders, packed 100,000 cases.

Mainly owing to the success of Gosford, 12 other Citrus Packing House Companies have been formed in other Citrus districts. The Packing Houses have (allowing for local conditions), followed as closely as possible the organisation methods of the California Fruitgrowers' Exchange, and in accordance with those ideas, the N.S.W. Central Citrus Association was formed in 1923 by the co-operative Packing Houses then in operation. All but two of the Packing Houses at present in operation belong to the N.S.W. Central Citrus Association. In their first year (1923), 80,000 cases were packed by members of the Association. This year the quantity is estimated at between 400,000 and 500,000 cases.

Each year Gosford has added to the building and plant, and the dimensions of the House are at present 105 feet by 58 feet. Electric power has been installed this year to drive the sorting belt and all sizing machines.

The necessary finance was arranged through the Rural Bank who accepted the idea of limited guarantors, by which a number of our shareholders signed P.N.'s payable on demand for a certain amount, thus limiting their liability to that amount. The only cash asked for from our shareholders has been one £1 share for every bearing acre. Owing to the large number of young orchards in this district, the average share holding is less than five.

**Re Fruit Export Control Bill:**—We note your attitude in connection with the control of export, and our committee are fully in support of your views.

Yours faithfully, Gosford District Citrus Packing House Ltd., P. S. Macdermott, Manager.

## COLLAR ROT OF CITRUS TREES.

### Some Helpful Hints.

COLLAR ROT is found in many, if not all, of the citrus-growing countries of the world. It recurs fairly frequently in Australia, but, unfortunately, often escapes the notice of growers until serious damage has been done. It is with a view to calling the attention of growers to a prevalent disease that these notes are compiled. (States the N.S.W. Agricultural Gazette.)

Collar rot manifests itself most frequently by "gumming" on the trunk just above, or close to, the ground. In many cases if the area of gumming is examined the bark in the vicinity will be found dry and brittle. Trees may be attacked at all ages. When the young tree is attacked there may be chlorosis or "yellowing" of the leaves, especially on terminal twigs, but with older trees this yellowing may not appear until the tree has been nearly ringbarked at the trunk.

Constantly in association with the disease is a fungus parasite (Fusarium limonis), which first makes its inroads through an injury or through water-logged bark. The spores which propagate the fungus can be washed down irrigation channels from previously infected trees, and can be carried on to the land in small amounts of soil. They may be adhering to nursery stock or soil, and in some cases are carried from tree to tree by the grower on implements. This can happen especially in treating diseased trees if care is not observed with the knife. In some cases tiny white tufts —the spores of the fungus—can be

observed on diseased bark, but may not be very obvious.

The fungus parasite grows very slowly through the tissues of the trunk, and slowly, too, accomplishes the ringbarking of the tree if left unchecked. Sometimes a tree will set a fairly heavy crop before death. The decay proceeds upwards to the stem and downwards to the roots.

The "union" of the tree is sometimes a point of entry, and so should be kept well above ground. Care should be taken to avoid injury to the bark of trees, especially with shovels and hoes when removing weeds. It has to be remembered that the condition is favoured and developed by bad drainage, while moistness of the soil in immediate contact with the trunk is also undesirable. Under irrigation conditions it is never necessary to run water right up to the tree trunks, and this should be avoided.

**Treatment.**

Where "gumming" is observed the earth should be scraped away from the base of the tree and the whole of the dried bark apparently infected by the fungus should be cut away with a pruning knife, and the wound painted over completely with bluestone paste.

The bluestone paste should be prepared according to the following formula:—1½lb. copper sulphate (bluestone), 4lb. unslaked lime, 1¾ gallons of water. The lime should be slaked and brought to a pasty condition with portion of the water; the bluestone should be completely dissolved in the remainder of the water, after which the two solutions should be mixed. If the paste dries a little on standing it should be brought to the necessary thinness again by the addition of a little more water. It may be an advantage, instead of replacing the contaminated earth, to put a little clean sand around the trunk after completing the treatment.

In cases where collar rot is too far advanced for the tree to be saved by this treatment it should be removed and burned, and the stump hole then dry-limed before replanting the gaps. In such cases it would be advisable to paint the new tree with bluestone paste around the "collar" prior to planting.

## CITRUS EXPORT.

### Leeton Oranges Shipped via. Melbourne.

Much satisfaction is expressed at the Leeton Murrumbidgee Irrigation Areas, N.S.W., because of the action of a Melbourne fruit handling firm (Messrs. A. Millis and Sons) in purchasing 10,000 cases of Oranges for export. The first lot of 5,000 cases was sent by the "Baradine," and the remaining 5,000 by the R.M.S. "Osterley."

## CITRUS BY-PRODUCTS.

### Operations at Gosford, N.S.W.

The prospectus is to hand from the Fruit Products Ltd., Gosford, N.S.W., which company is designed to absorb the Fruit and Vegetable By-Products Ltd. The nominal capital is to be £100,000 divided into 100,000 shares of £1 each, of which 8,908 ordinary shares are held by present shareholders. 10,000 each ordinary and preference shares are affered for public subscription in order to enable the directors to cope with the increasing "Jusfrute" business, and to extend the company's activities.

Operations during 1924, according to the prospectus, show that the experimental period has passed, and the company is on a firmly established manufacturing basis, the net profit earned during the year amounting to £898. This is equal to 10.3 per cent on the paid-up capital. With the additional capital now asked for, the Directors are confident that the manufacturing output can be largely increased and the scope of the company's operations extended with a resultant increase in net profits more than sufficient to pay 10 per cent on the paid-up capital.

The following are the quantities of the various products manufactured by the company during the year 1924:—"Jusfrute," 30,000 lbs. or nearly 13 tons of concentrated essence. (Sufficient to flavour 7,500,000 10oz. bottles of beverage). Lemon Oil, 2,460 lbs. (enough to flavour 700,000 ounce bottles of Lemon essence). Orange Oil, 421 lbs. Lemon Juice, 4,402 gallons. Passion Pulp, 600 lbs. In the course of the year, 19,132 bushels of Lemons, and 4,126 bushels of Oranges were treated. "Jusfrute," the main product of the company, was placed on the market twelve months ago, and immediately gained popular favor, the company having to work at high pressure during the summer months in order to meet the demand. The company is assured of supplies of good fruit since the interests of growers are combined with those of the company, and the factory is situated in the heart of a citrus-fruit district.

The Directors are Messrs. W. M. Fleming, ex-M.H.R., Sydney, (Chairman), G. I. Adcock (Managing Director), F. R. Archbold (Narara), W. E. Kirkness (Gosford), W. L. Marcoft (Dural). The Secretary is E. E. Muir, Gosford, N.S.W.

## BROADCASTING CITRUS PRICES.

### Appreciation from N.S.W.

The progressive work of the Victorian Central Citrus Association in broadcasting market prices is widely appreciated.

Mr. John B. Heckley, of Maroota, N.S.W., writes, (19/8/25):—"As a shipper of citrus fruit to Victoria, I must state that the market report broadcast by 3LO Broadcasting Station, is appreciated by myself and other growers of the district who also consign fruit to that State, it being a great guide in comparing prices of the Interstate and local market."

### Resistance of Scale Insects to Hydrocyanic Acid Fumigation.

Writing in the "Review of Applied Entomology," London, Mr. H. J. Quayle, of Geneva, N.Y., states that for some years past unsatisfactory results have been obtained in fumigating for Chrysomphalus aurantii, Mask. (citrus red scale) in Corona, California, and also in Orange County. It is suspected that this is due rather to the scale being more difficult to kill in these districts than to inefficient measures.

Evidence extending over seven years at Corona and four-five years in Orange County indicate that it is not necessarily a seasonal condition. If it is a

**case of acquired immunity,**

and the factor of resistance is hereditary, this factor must be transmitted through two or three generations of scales, since this number intervenes between fumigations. There is some evidence to indicate that individuals alive after one fumigation are more resistant to a second. Greatest resistance is shown by scales on trees that have been regularly fumigated once or twice a year.

The variable factors of time and place affecting the results of fumigation have to do chiefly with conditions of humidity and wind, and also with the amount of foliage on a tree, as foliage absorbs hydrocyanic acid. It was found that the proportion of scales killed was approximately 5½ per cent. greater when there were no leaves.

Scales are most difficult to kill on the fruit and on vigorous shoots and leaves than on twigs or the leaves on them. This difference in resistance on different parts of the tree seems to be related to the food supply of the scale. Certain stages of the scale show more resistance than others. The moulting period, particularly the second moult, and the adult or young-

producing period, are the two most resistant stages, especially the former.

In 1915, attention was called to the difficulty in killing the black scale (Saissetia oleae, Bern.) in the vicinity of Charter Oak, California. Comparative fumigation tests were impossible, as this scale does not infest the fruit, but experiments of the past six years show that this pest is much more difficult to kill in that district than elsewhere. Even small scales were not killed with dosages greatly in excess of the ordinary amount. In these localities neither of these scales are immune from hydrocyanic acid, but the dosage required for satisfactory results is such as to render it unsafe for the tree except under the most favourable conditions.

## "POOR MAN" ORANGES.

The Auckland Council of the New Zealand Institute of Horticulture has under consideration the matter of giving this fruit its proper name. The names suggested are Golden Crown, Grape Fruit, or Auckland Grape Fruit. It is stated that if picked green, and properly cured, the fruit is not bitter, but is equal to any imported variety of Grape fruit.

Mr. G. A. Green states that the fruit is evidently a Grape fruit, imported from overseas, but the original name has been lost. Buds had been supplied to the University of California so that the variety can be identified.

## SOUTH AFRICAN FRUIT TRADE.

### Successful Co-operation.

South Africa has experienced a very successful season in the export of fresh fruit in the 1925 season. The exports consist of Oranges, Tangerines, Peaches, Nectarines, Plums, Pears, Apricots, Grapes, and a small quantity of Apples. Most of the fruit is handled through the **Fruitgrowers' Co-op. Exchange,** which has a London representative. In future, fancy and choice fruits will be branded "Goldland" on the tissue wrappers. Growers are being urged by the Government to pre-cool all fruit intended for export, and iced trucks will in future be provided by the railway authorities. All fruit is inspected by the Government before export, for which a small fee is charged, and when passed, the coat of arms of the Union is stamped on the boxes of fruit. The regulations controlling exports of fresh fruits are severe, and cover grading, packing and marking in all their details.

## FIREBLIGHT IN NEW ZEALAND.

### Reassuring News.

A REPORT on the condition of Fireblight in the Dominion has been issued by Dr. R. J. Tillyard, of the Cawthron Institute at Nelson. Dr. Tillyard first notes the biological history of the disease, mentioning the host plants attacked by it. It is reported that while the disease attacks the Pear tree with virulence, it is neither so rapid nor so virulent on the Apple. Thus, it has generally been called Pear blight. Both Pears and Apples are more liable to attack when they are making vigorous growth, and have a strong flow of sap.

It is interesting to learn that Kieffer's Hybrid Pear is quite immune from the blight, while Williams is the worst Pear of all for the attacks. Conference and Packham's Triumph are also very subject; while Winter Nelis, Winter Cole, and Elizabeth Cole are not quite so badly attacked. Kieffer's is the only known Pear quite resistant, while Beurre Clairgeau is possibly also resistant.

In Apples, no known variety resists the attacks; and London Pippin and Lord Wolseley are the most subject of all varieties.

The report deals considerably with the spread of the blight, and shows that the attack is limited to one large and three small areas in the North Island.

Dr. Tillyard discusses the possibilities of the introduction into Australia, and concludes that with due precautions, there need be no fear of those possibilities. The rigid enforcement of plant quarantine of definite host plants, the prohibition of the importation of bees from infected areas, seem to be the only necessary precautions. **It is stated that the disease is not carried on the fruit, but only on twigs, scions, or seedling stocks.** The introduction of the blight by honey is considered impossible, as by the end of four days it is stated that the bacteria are destroyed.

In a recent letter received in Melbourne from Dr. Tillyard, he states that Fireblight is absolutely under control in New Zealand, and that it is wiped out in all districts, except in Auckland.

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WADE
& CO.
*Fruit Merchants*
Prompt Advices of Sales
— CHEQUES WEEKLY —
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MELBOURNE
And WESTERN MARKET.

## OBITUARY.

We regret to report that on the 28th July, Mr. Joseph Meharg, fruitgrower of Eukey, Queensland, passed away after a short illness. He leaves a widow and four children to whom our sincerest sympathy is extended.

## DEATH OF MR. A. S. NEILSON.

Mr. A. S. Neilson, who for years has been associated with fruit nomenclature work at the Burnley Horticultural Gardens, Victoria, passed away on the evening of August 14th last. Mr. George Neilson, his father, was Curator of the Gardens for many years, and made the collection of fruit trees very extensive. Mr. Stewart Neilson has been associated with work at the gardens for about forty years, and was well known to all visitors.. His knowledge of fruit varieties and their origin was very extensive, and visiting nurserymen and fruitgrowers took advantage of this to frequently consult him on these subjects. Mr. Neilson's death will create a gap which will be hard to fill.

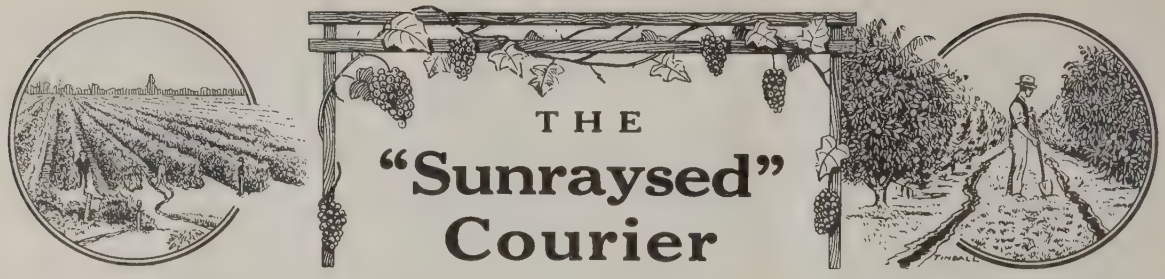
## MANURING THE VINEYARD.

Mr. A. V. Lyon, B.Agr.Sc., Merbein, sets forth the following manurial system:—

(1) On alternate spaces between rows, sow leguminous seed, in autumn, with 2 cwt. of superphosphate per acre.

(2) On the remaining spaces, apply in early spring, a mixed fertiliser, in such quantities that the phosphoric acid content is equal to 2 cwt. of super, for Sultanas, and 3 cwt. for Currants. Growers may make their own mixtures if so desired, or may use two or three separate fertilisers, instead of mixtures. The quantity of nitrogen in the mixed fertiliser must at present be left to the judgment of the grower, as data are not available.

(3) If potash is used, the quantity should be, in addition to the plant foods already named. The additions of potash may, of course, be made as a mixed fertiliser, or as a purely potassic fertiliser.




## DRIED FRUIT GROWERS.

The fact is very evident that growers of dried fruits take a serious view of the present state of the industry. A meeting at Mildura on August 20th urged that the recent advances by the Commonwealth Government be wiped off, and that an impartial tribunal be appointed to investigate the industry in all its bearings—production, finance, marketing, etc: that the Government grant subsidies to return to growers the cost of production: "that, in view of the urgent need for assistance in order that growers may carry on with pruning, etc., for next season's crop, the Government be asked to provide an immediate advance to the extent of £10 an acre on all blocks under Sultanas, Currants, Walthams, Lexias, and Doradillos."

The following motion was agreed to:—

"That the Federal Government be requested to submit a referendum to the electors at the next Federal election for an amendment of the Federal Constitution to give added powers to the Federal Government enabling it to provide for the stabilising of all primary products."

* * *

A deputation subsequently waited on the Prime Minister, who declined to guarantee to growers the cost of production.

## A.D.F.A. ACTIVITIES.

**Window Displays.**—Growers will be pleased to learn that a succession of window displays is being made by the Australian Dried Fruits Association in Melbourne and suburbs, also Geelong, Ballarat and Bendigo in Victoria, and windows displays are also in progress in Sydney and suburbs. It is the intention of the Association to continue these window displays for some time, as it is felt that this form of publicity is most effective. In S.A. the A.D.F.A. are co-operating with the State Board, who propose having a "Fruit Fortnight," probably about the end of September. The Association is making available a large number of recipe books, which are an excellent medium of illustrating to the housewife how she can get the best results by the use of dried fruits. Recipe books are also distributed during every window display, and by this means, the housewives should become better acquainted with "Sun-Raysed" dried fruits.

**Souvenir Box Scheme.**—The Association is accepting orders for 5/- and 10/- boxes for delivery anywhere in the British Isles. These boxes contain an assortment of:—Apricots, Pears, Nectarines, Currants, Sultanas and Lexias—and as they are delivered by post to householders in Great Britain, they are one of the most effective means of bringing Australian dried fruits before the British public. Growers who have relatives or friends in Great Britain should take advantage of this scheme, and the Association will be pleased to supply coupons to anyone requiring further particulars.

## THE DRIED FRUIT GRUB.

### Valuable Control Experiments.

In a recent issue of the "Murray Pioneer," S.A., reference was made to a demonstration at Renmark of the efficacy of the Connolly-Dix patent for destroying the dried fruit grub. The demonstration, which was made in the presence of representatives of the dried fruit industry, illustrated a process for the elimination of the grub trouble by means of a paper (treated with a certain chemical mixture) which lined the boxes containing the fruit.

A number of samples of badly infested fruit of the 1924-25 packs were shown, also infested Currant bunches just taken from the vine during pruning, and Currant biscuits made in an Adelaide factory. All these gave evidence of the work of the dried fruit moth grub, and a sample of pearl barley showed the red rust busily at work. There was also an exhibit of white ants which had been killed by exposure to the fumes of treated paper in 20 minutes.

After a short address by Mr. Connolly, boxes of Currants and Sultanas packed at the Glossop shed on April 16th, were emptied for inspection. Badly infested fruit had been purposely selected at the time of packing; also, a number of live grubs had been mixed with the fruit before the boxes were nailed down. The only treatment given the fruit was the placing of a sheet of prepared paper at the bottom and another sheet below the top of the box. No trace of living grubs or the red rust beetle were found on opening the box, and the odour of the treated fruit was agreed to be not unpleasant. The flavour of the fruit was unimpaired, and the only beetles and grubs seen among it were dead ones.

It was agreed that Mr. Connolly's method of moth and grub extermination was cheap, easily applied, most effective and clean, the substance used being not only harmless but of medicinal value, being the basis of the well-known sarsaparilla drink. Further experiments are being made with a view to determining the smallest quantity necessary to be effective while reducing the odour as much as possible.

## THE DRYING OF APRICOTS.

The following results were obtained last season in drying experiments with Apricots at Hawkesbury Agricultural College:—

Experiment No. 1.—168 lb. of fruit dried out to 30 lb. 8 oz. in 15 hours at 125 deg. (Pits weighed 10 lb.)

Experiment No. 2.—89 lb. of fruit (whole) dried out to 20 lb. 2 oz. in 31 hours at 125 deg.

Experiment No. 3.—71 lb. of fruit dipped in caustic soda (1 lb. to 30 gallons boiling water), and dried whole was reduced to 17 lb. 6 oz., and took 25 hours to dry at 125 deg.

Experiment No. 4.—42 lb. of fruit dipped in caustic soda solution, then halved (pits weighed 3 lb.), dried to 6 lb. 8 oz., and took 13 hours to dry at 125 deg.

Experiment No. 5.— 78 lb. of fruit (pits extracted), left whole dried out to 12 lb. 15 oz. in 28 hours at 125 deg.

# Queensland Fruit Marketing.

## Growers Resent Compulsion.

## "Bitterness and Enmity" Created.

A big deputation of fruitgrowers, representing the Brisbane and Stanthorpe branches of the League of Freedom, supported by growers from the North Coast, waited on the Queensland Minister for Agriculture (Mr. Forgan Smith) at the end of July, urging—(1) that there be no amendment to the Queensland Fruit Marketing Organisation Act, (2) if an alteration were proposed, a referendum of the growers should be taken. In support, a petition was presented, signed by 370 legitimate growers in the Granite Belt (Stanthorpe district) objecting to coercion.

Speakers stated they did not want to give the C.O.D. more power than it had at present, as defined by the High Court: they were firm believers in co-operation, but the compulsory clauses were not democratic, and undermined the true principles of co-operation which had succeeded in other countries: the policy of limitation of agents was detrimental to the growers.

Growers of Pineapples, Bananas, citrus, Apples and other fruit each spoke condemning the present compulsory methods. One grower stated that in all his experience on the land he had never known such social bitterness and enmity as had been the outcome of the actions of the C.O.D., which was not truly co-operative, and not representative of the concensus of the opinion among the growers.

The Minister, in reply, said he regretted the dissention and bitterness which had been caused. The Government intended to confer large powers under the Act, and saw no reason for altering its opinion. He would review the Act and endeavor to find a remedy for the existing situation. The matter would be thoroughly considered before any action was taken.

If the present dissention and internecine strife could be ended, there would be no need for Parliament to act.

**T. STOTT & SONS**
**Fruit Merchants**
Established 1882

**A Trial Consignment solicited from Growers in all States.**

**Prompt Settlement.**

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**Melbourne**

## "THE FIRST MILESTONE."

### Report by C.O.D.

A comprehensive illustrated report has been issued by the Committee of Direction of Fruit Marketing, setting forth the activities of the Committee during its first year of existtence. At the time of writing we have not received a copy, but press extracts are to hand: it is stated that large savings have been effected for the growers, and that the fruit industry of Queensland is to-day in a better position because of the activities of the C.O.D. The control and organised marketing of Pineapples was particularly effective.

* * *

On the other hand, a letter has been received by W. Sam Johnson, of Brisbane, challenging the figures in the report, and stating that the control of Pineapples caused growers a loss of over £31,000.

## BRISBANE SHOW.

### Valuable Fruit Exhibits.

A magnificent display of fruit was shown at the Brisbane Agricultural Show, held last month, including competitive district exhibits from Montville, Redlands, Palmwoods, Cooran, and Bowen. A combined case fruit display was also staged from these districts, and this, as well as an exhibit from Stanthorpe, was non-competitive. The main fruitgrowing areas of Queensland were represented, and visitors were given a glowing picture of this valuable industry.

**Subscriptions Received.**—The Management of the Fruit World Pty. Ltd acknowledges with thanks having received renewal payments from numerous subscribers. The list, embodying payments from July 1st to August 20th, has, owing to pressure on space, been crowded out of this issue, but will be published next month. Any reader desiring a receipt may have one if requested. Otherwise, the usual acknowledgment in these columns will be made. Thank you.—The Manager.

**Hardie Mogul 10 Sprayer.**—We are advised that Mr. Sydney Stott, of Wheeler's Hill, Vic., has purchased a Hardie Mogul 10 Sprayer. Any person desiring to see the machine in operation is invited to call at the orchard.

**SWANN & Co.**
**Established 1822.**
**A century's experience in handling**
**FRUIT OF ALL DESCRIPTIONS**
**All Consignments for U.K. will have Personal Supervision and Attention**
**Account Sales and Cheques despatched immediately after sale.**
**3 SALTER'S HALL COURT,**
**London, E.C., England**
**Cables:—FIREBRICKS, LONDON**
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**Victorian Agent: H. M. Wade & Co., 471 Flinders Lane, Melb.**

## CONCENTRATED TOBACCO EXTRACT.

Attention is directed to a highly concentrated nicotine product now placed on the Australian market, known as **Insecto.** This is another of the useful products from the laboratories of the makers of the well-known Harbas Spraying Oil, Harola Lime-Sulphur, and National Bordeaux Powder.

The manufacturers state positively that there is no need to use an imported nicotine extract, as Insecto is the last word in this connection.

For Woolly Aphis it is recommended to spray with a solution of 1 pint Insecto to 1 gallon of Harbas Spraying Oil in 70 to 80 gallons of water. If chewing insects are present, use 1 pint Insecto and 2 lbs. Arsenate of Lead to 40 gallons of water.

Full details are obtainable from Mr. Esmond Russell, 60 Queen-street, Melbourne.

# Orchard Registration in Victoria.

## An Appeal for Its Adoption.

(By James H. Long, Harcourt.)

AS the subject of orchard registration has now got into the sphere of practical politics, the time seems opportune for a brief review of the matter.

New Zealand was the first to bring in legislation for the compulsory organisation of fruitgrowers. "The Orchard Tax Act 1916" was passed at the urgent request of the fruitgrowers of the Dominion, and provides for the collection of an annual tax of 1/- per acre planted in orchard for commercial purposes, or from which fruit is sold; minimum tax in any one year, 2/6. The duration of this Act was for five years, when it would automatically lapse unless re-enacted at the request of the fruitgrowers.

HAMBURG
(GERMANY).
Ph. Astheimer
And Sohn,
Fruit Brokers . .
and Auctioneers
(GERMANY)
Established 1863.
Largest receivers of Australian, Tasmanian, and American APPLES.
Foreign Apples a Speciality.

The money is collected by the Government through the Horticultural Department, or is payable at any Post Office, and the amount, less cost of collection, is handed over to the N.Z. Fruitgrowers' Federation.

This has enabled the fruitgrowers to set up a permanent central office, which is perpetually at work in the interests of the growers. Resolutions passed at conferences, etc., can be followed up and kept continually before the authorities to the advantage of both the producer and the State.

The benefits accruing from the Act were so apparent that there was a unanimous request for its re-enactment, and it has been placed permanently upon the Statute Book. The latest balance-sheet (Dec., 1924) shows cash received, £1,700; cost of collection, £382. The principal items of expenditure are:—Advertising, £150; conferences expenses, £297; directors' expenses, £78; experimental account, £56; office expenses, £55; rent, etc., £83; salaries, £350; balance carried forward, £126.

At the Australian Conference of Fruitgrowers, held at Launceston in October, 1918, the principle of an acreage tax was affirmed, and the various State Associations were requested to approach the respective Governments asking for legislation on the N.Z. lines.

The executive of the Victorian Fruitgrowers Central Association approved of the plan, and the orchard tax was placed on the agenda paper for the Convention held at Burnley in May of the following year, and a motion was carried:—"That this Convention approves of the raising of funds by means of an orchard tax for the employment of an organising secretary, and for the advancement of the industry. Similar motions were carried at Mildura (1920) and Geelong (1921).

In the meantime, deputations had waited on successive Ministers of Agriculture, but without result. At Burnley, in 1922, the Hon. H. S. W. Lawson informed the Convention that his Government would not introduce legislation on the required lines, as it savoured too much of compulsory unionism. Some growers opposed the tax as they did not approve of compulsion, and desired to give voluntary effort another trial, but the continued failure to obtain adequate results by this means has convinced the majority of them that the tax or registration is the only way. The late Labour Government approved of the scheme, and the present Government also have it on their programme.

In the N.S.W. Plant Diseases Act 1924 Orchard Registration at a fee of one shilling per acre is enacted, and the Colonial Treasurer shall, on the recommendation of the Minister, pay out of such money.

(a) To any society registered under the Co-operation, Community Settlement and Credit Act 1923, which has among its objects the promotion of the production, treatment and sale of fruit.

(b) To any association who, to the satisfaction of the Minister, will wholly apply such money to the promotion of further production, treatment and sale of fruit.

(c) To be used in any other manner which the Minister deems to be best calculated to develop or protect the fruitgrowing industry.

(d) As compensation to any person whose property has been destroyed.

This portion of the N.S.W. Act has not yet been brought into operation.

It has long been felt that the present system of organisation is undemocratic, as a few spend their time and their money for the benefit of the whole; many sharing in the advantages without contributing to the cost.

The discussions that have taken place at various meetings show the difference of opinion that exist as to the distribution of the money to the best advantage..

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MELBOURNE
*Reference—Satisfied Growers in all States.*

It may be laid down, in the first place, that **the money should not be used for commercial purposes.**

All co-operative business ventures of the growers should be made to pay their way, and to subsidise them from this fund would encourage extravagant management.

If available, money might be advanced as a loan to help a co-operative trading company over its initial difficulties. **The principal avenues of expenditure would be the encouragement of the sale and consumption of fruit by advertising and other means, experimental purposes in seeking new markets, or improving production, organising and salary of secretary, payment of delegates' expenses to meetings and conventions.**

Every grower is apt to exaggerate the importance of his own section of the industry, but all must admit the necessity of a central committee, which can speak on behalf of the industry as a whole.

The main work would fall on the sectional organisations, and to them the bulk of the money would be paid. The ultimate success of any scheme depends on the interest taken by the individual grower: thus district societies are essential.

Each section could decide what proportion of its quota should be retained for its own work, and what passed on to the district societies.

Five or ten per cent. should be sufficient for the central committee, the secretary of which could also be secretary of one or more of the sectional bodies.

The following sections might be provided for:—Citrus, canning fruits, berries, Apples and Pears (other than canning), metropolitan.

The question of a growers' membership of more than one section, would, I think, soon work out satisfactorily in practice. The money to be divided among the sections in the proportion that the members contribute.

I have endeavoured in the above to give a review of the orchard tax or registration since its inception, and would appeal to all growers to support a scheme which, if properly managed, will place the fruitgrowing industry of the State on a permanently profitable basis.

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At a meeting of the Northern Victoria Fruitgrowers' Association, held at Merrigum on August 7th, Mr. D. G. Wills, of Sydney, explained the system of receiving bulk lots of fruit from Goulburn Valley growers under an over-riding brand. It was agreed that the price of £10 per ton for canning fruits did not cover the cost of production.

**Melbourne and Suburban Retail Fruiterers.**—At a special meeting of the members of the Melbourne and Suburban Retail Fruiterers' Association, the following resolution was carried:—"That the members of this Association take no further action re the proposed weekly half-holiday for the present."

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**Shepparton Cannery and Cool Store.**

Large extensions are being made to the Shepparton Co-operative Cannery, including the erection of a 42,000 case cool store.

**Victorian Fruitgrowers' Central Association.**

THE quarterly council meeting of the Victorian Fruitgrowers' Central Association was held at Melbourne on August 20th. The meeting was well attended, Mr. Geo. E. Mock (President), being in the chair.

It was decided to protest against the decision of the Deputy Commissioner of Taxation to the effect that the adding of manures increased the unimproved value of the land.

**Shipment to China.**—Mr. Lang stated that the proposed shipments of Apples and citrus fruit to China was postponed owing to the unsettled conditions of that country.

A letter was received stating that the Kyvalley Fruitgrowers' Association was disbanded, and the organisation had been formed at Kyabram. The new Association was admitted to membership.

**1926 Conference.**—Following on a letter from Mr. Williamson, it was decided, on the motion of Messrs. Lenne and Wallace, to hold the Conference at Portland, if satisfactory arrangements could be made.

**Canned Fruits.**—Mr. Lenne stated that the recent large sale to London

## *The Horticultural Division of the Victorian Agricultural Department.*



**Back Row.**—R. T. Wadeson, G. Merritt, H. Prosser, H. G. Purcell, A. Simpson, W. Aitken, Miss E. Jones, F. H. Read, A. T. Hodges, W. Worboys, C. Nelson, Miss W. Heydt, A. E. Morris, D. D. Brown, J. Bergin, J. Fox, J. Woods.
**Third Row.**—B. J. King, W. H. G. Keys, T. B. Hickey, L. Pilloud, H. L. Hatfield, A. Jones, W. Nunn, W. H. Nicholls, C. W. Wills, G. H. Fletcher, G. H. B. Davidson, J. A. Bass, S. V. Roberts.
**Second Row.**—J. Thomlinson, J. Farrell, A. A. Hammond, J. W. Bainbridge, H. W. Davey, P. J. Carmody, J. M. Ward (Superintendent), S. A. Cock, E. E. Pescott, E. Meeking, C. T. Cole, C. F. Cole, B. Krone.
**Front Row.**—G. A. Goodsir, W. Begley, H. Baker, R. Morriss, L. Worrall, F. J. Greatorex, J. L. Provan, E. A. King, R. Nelson, J. Walsh, H. Roberts, S. McColl.
(Read Left to Right.) Insets.—Left—F. de Castella. Right—M. Cronin.

was made possible because of substantial freight reductions which operated as a bounty. Several speakers, while appreciating the fact that the Australian stocks were cleared to make room for next season's pack, regretted that the bounty was not granted earlier, as growers lost heavily through not being able to get their fruit processed.

Mr. Foster stated that £10 a ton was inadequate, and unless growers received £12 a ton for canning fruits, they would have to go out of business. A statement of the policy of the Commonwealth Government in regard to further subsidies was urgently desired.

A sub-committee, consisting of Messrs. Bailey and Tully was appointed to interview the canners, with the idea of having a larger quantity of Keiffer Pears processed.

Mr. Lang reported that the Minister for Agriculture had sympathetically received the recent deputation. A fresh bill for the orchard tax was being prepared for Cabinet. Regarding the establishment of a Rural Bank, Mr. Lenne said that growers preferred the 1918 Fruit Act under which the Government made more liberal advances to growers than did the Savings Bank Commissioners. The extension of kerb markets was approved for both southern and northern growers.

**Grading Regulations.**—Mr. Bailey gave a verbal report concerning the last meeting of the State Advisory Board, "as a matter of courtesy, but not because there was any obligation on his part to do so." The Advisory Board had carried a resolution objecting to any exemptions under the new grading regulations. Two cases of fruit had been submitted at the Advisory Board—good fruit on top and inferior and unsaleable fruit underneath. Continuing, Mr. Bailey urged that all fruit, whether open or closed, should have a label affixed denoting the grade.

Mr. Aspinall said that he was on the Advisory Board to carry out the growers' wishes. The Echuca Conference had resolved in favor of the present exemptions. His colleague, Mr. Bailey, apparently spoke for himself and not for the growers. A vigorous discussion ensued, Mr. Bailey being severely criticised. Growers submitted that it was folly to ask the Minister to alter the regulations because of the examination of two cases which might have been bought from a dealer, and not a grower.

Mr. Lang said that once a case of fruit was sold, the brand was of no value. The present laws were sufficiently powerful to allow of successful prosecutions for "topping." He could not follow the workings of Mr. Bailey's mind. The latter claimed to represent the growers of Victoria, and yet he refused to follow the instructions given at a conference by Victorian growers. (Hear, hear.) He could not have it both ways. Either he expressed his private opinion to the Minister, and represented nobody but himself, or he represented the growers of Victoria, and spoke on their behalf. This Association should nominate its representative for a term not too long and not too short, otherwise the whole proceedings were reduced to a farce.

Mr. Gaasch suggested that from time to time a thorough inspection should be made in the same way as railway tickets were checked.

Mr. Mair said that the Conference, having spoken, they should go forward officially to the Minister, who would doubtless take more notice of the Central Association than the Advisory Board. (Hear, hear.) The Advisory Board was supposed to carry out the wishes of the Central Association. Otherwise, the sooner the Advisory Board was done away with the better. (Applause.)

On the motion of Messrs. Stanford (E. Burwood) and Tully, it was resolved—

"That this meeting disagrees with the resolution agreed to by the State Fruit Advisory Board recommending that the exemption of section A, clause 15, of the regulations be deleted; and confirms the resolution agreed to at the Echuca Conference favoring the exemption."

**Fruit Essences.**—Three representatives of the Essence Manufacturing Association were present by invitation, and pointed out that were sufficient protection given to the industry, large quantities of fruit would be used in the manufacture of essences. Last year £71,000 was paid for imports. It was resolved that this Association supports the essence manufacturers in their efforts to extend the industry in Australia. Messrs. Foster, McCully, and Boardman were appointed to act for the manufacturers in this matter.

**Railway Freights.**—A letter was received from the Shepparton Irrigators' Association re the high rate of freights charged on fruit (fresh and processed) compared with those on wheat. It was resolved that a deputation, consisting of Messrs. Mock, Tully, Lang, Lenne, Thomas and Foster, wait on the Railway Commissioners to press for a reduction.

**Bounties.**—Messrs. Lenne, Tully and Foster were appointed to act with the Northern Association in the appeal to the Tariff Board for bounties on fruits exported, and it was resolved—(1) That, in the opinion of this Association, it is necessary for a bounty to be granted on the export of canned fruits, and urges the Commonwealth Government to immediately give favorable consideration to this matter, and thus give growers security for the coming season's fruit.

**Packing Charts.**—It was resolved that this Association thank the Department of Agriculture for having issued valuable charts, setting forth the best methods for packing fruits. (Motion Messrs. Thomas and Wallace.)

**Finance.**—The Secretary presented a report showing that after paying all outstanding accounts at the end

MARGETSON
& CO. LTD.
Fruit Importers & Salesmen
30 James St. and James St. Warehouses,
11 Neal St.,
COVENT GARDEN
LONDON, W.C.
and at
Jamaica House,
9 & 10 Botolph Lane, London, E.C.
& 56-58 Stanley St., Liverpool
Sales by PRIVATE TREATY.
Prompt Returns & Settlements
Tel. Add.—FRUTERO, LONDON.
MARGETSON, LIVERPOOL
*Head Office—Covent Garden Market, London, W.C.*
Bankers:
LLOYD'S BANK LIMITED
Law Courts Branch, Strand, London, W.C.
Shipping Nos.
431 and 432

Raspberries, Loganberries & Light-colored Cherries
Fruit received tbrough Christmas and New Year Holidays.
C. M. BROOKE & SONS
73 Whiteman St., South Melbourne, Vic.

of the year, and balance of expenses of 1923 Arbitration case, there was a balance of 13/7 in hand. No funds being available to pay the expenses for the 1924 case, it was resolved that when all accounts are in, a claim be made on the Primary Producers' Fund for the amount.

### VICTORIA MARKET, MELBOURNE.

**Early Trading Hours Objected To.**

Strong protests against the early opening of the Victoria Markets were voiced at the annual meeting of the Metropolitan Fruitgrowers' Association in July. Although no resolution was adopted, the delegate from Diamond Creek (Mr. W. J. Nankervis) was thanked for his attendance and his vigorous appeal in favor of opening at 6 a.m.

Briefly put, the Victoria Market now nominally opens at 4 a.m., but in reality trading goes on from a much earlier hour. These marketing hours are deemed unnecessarily long and irksome; some growers say the hours are "unchristian," and that the present system lends itself to a lot of abuses.

Those who favor the present hours state that it is necessary for the market to open early, so that fruit sold could catch the early trains. In answer to this objection, those who earnestly desire to make the alterations, state that this objection can be easily overcome, and point out that markets open in the other States much later than in Melbourne. Retail buyers favor the later hours.

**Edward Jacobs & Sons**

**Covent Garden Market LONDON, England**

Solicits Consignments of Australian Fruit.

Tasmanian Representative:

**W. D. Peacock & Co. Ltd**

PRINCES WHARF, HOBART

Shipping Number 418.

**HAMBURG**

(GERMANY)

**J. H. Lutten & Son**

Hamburg (Germany)

**Fruit Brokers & Auctioneers**

Established 1835

**FINEST TABLE APPLES A SPECIALTY**

**Sale Room "Fruchthof"**

Consignment of Apples Solicited

Best market values and most favorable conditions

Cash advances made if desired

### CO-OPERATIVE MARKETING.

**Proposals by Growers.**

During August a deputation, representing Shepparton and other Northern Victorian growers, waited on the Minister for Agriculture (Mr. Bourchier) urging the adoption of a co-operative marketing scheme. The proposal by Mr. L. J. Michel, of Shepparton, laid down the establishment of a central depot in Melbourne, suburban depots, motor transport, extension of kerb markets: a loan of £10,000 from the Government was required.

Mr. J. A. Henderson, of Tatura, also submitted proposals, somewhat on similar lines, and stressing the importance of the country trade.

The Minister gave a sympathetic reply, and promised to examine the proposals carefully. He would particularly give attention to the extension of kerb markets.

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The Victorian Department of Agriculture and the Railways Department are to be warmly commended on the success of the Better Farming train. Of special interest to fruitgrowers are the exhibits of the Horticultural Division under the guidance of Mr. J. M. Ward, Superintendent of Horticulture.

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The assigned estate of Mr. J. L. Holland, Shepparton, will be sold at the Star Theatre, Shepparton, Vic., on September 5th, including 66 acres of land, of which 35 are under orchard in full bearing. After the sale several Holland "Guider" Fruit Graders will also be sold.

**W.A. Fruit Exports.**

The export of Apples, Pears and Grapes from Western Australia in the 1925 season totalled 339,737 cases—an increase on last year's shipments. The totals comprised Apples, 309,694 cases; Pears, 16,968 cases; and Grapes, 13,135 cases.

**IMPERIAL FRUIT SHOW**

**Holland Park Hall, London**

**OCT. 30th---NOV. 7th 1925**

First promoted in 1921 to foster the Imperial Fruit Trade, the Imperial Fruit Show is increasing in popularity yearly, and is now generally recognised as the annual rendezvous of all the progressive elements in the Fruit Industry.

**£2000 PRIZES for Fruitgrowers**

Australian growers will be interested in the competition for fruit grown commercially anywhere in the **BRITISH EMPIRE**

Classes are provided for Apples, Oranges, Tomatoes, Grapes, and new non-returnable packages, for which £2000 in cash prizes and trophies is offered.

A Special Challenge Cup is being offered this year for the best exhibit of Oranges grown in the British Empire.

*Schedules of Classes and Sections can be obtained*

*FROM THE*

**FRUIT WORLD PTY. LTD.**

**9 QUEEN ST., MELBOURNE**

*Other enquiries relating to trade exhibits and rates for advertisements in the SHOW CATALOGUE should be addressed to--*

*The Secretary,*
*18 Bedford Square,*
*London, W.C. 1*

# ROYAL AGRICULTURAL SHOW

A MOST ATTRACTIVE AND INTERESTING DISPLAY
IS BEING ARRANGED BY THE

# "Lightning" Fruit Grader Co.

**You cannot afford to miss this Exhibit**
of the
**Most Successful and Up-to-date Fruit Graders ever made.**




80 SQ. FEET of PACKING SPACE.
*Room for 20 cases on packing rails at one time*

CATALOGUE ON REQUEST.

**Prices from £16/10/- to £300**

Make our Stand your meeting place and invite your friends to see you there. You will always be assured of a welcome. All interstate growers particularly invited.

Working Demonstrations Daily at

**Barger's Implement Stand**
**No. 64 Plummer Avenue.**

The following models will be included in the Exhibit:—

**Special Double-sided "Lightning"**

**"Lightning" Units**

**"Lightning" Graders**
with
**packing bins on 2 or 3 sides**

**Elevator Conveyors**

**Sorter Conveyors**

**"Penang" Fruit Grader**

**Other Models at Factory**

## LIGHTNING FRUIT GRADER CO.,

**109 CROMWELL STREET - - COLLINGWOOD - - VICTORIA**
**Phone J 1084.**
Telegraphic and Cable Address—"LIGHTNING" Melbourne.

# The Grading of Fruit is a Modern Necessity

## Grading Machinery must do the work Speedily and Gently.

The "Lightning" Fruit Grader, manufactured at a well-equipped factory, meets Growers' requirements.

(*Contributed*)

STANDARDISATION and specialisation are the watchwords of the present times, and they apply with equal force whether in the realms of mechanics or agriculture.

Years ago at fruit shows in Melbourne—the "good old days"—fruitgrowers took a pride in exhibiting as many varieties as possible. But in this commercial age, and the necessity for economical production, growers find it best to concentrate on, and specialise in, a few standard varieties. One Apple orchard in U.S.A. of 1,000 acres, has five varieties only.

Then as regards marketing, the go-as-you-please style has gone forever. Growers know that it pays to

**grade and pack scientifically**

and to establish a brand of standard quality.

It is only in very recent years that fruit grading appliances made their appearance amongst us, the earlier models gradually giving way to the better designs as improvements became apparent.

Now what is the position to-day?

In the heart of the industrial city of Collingwood, Melbourne, an up-to-date, well laid out factory is devoted exclusively to the commercial production of fruit graders, turning out hundreds of machines for growers in all the Australian States, in New Zealand, South Africa, and other parts of the world.

Fruit grading is no longer the freak idea of idealists, but a practical everyday necessity.

We expect standardisation in all other branches of commercial enterprise, why not with fruit? Other parts of the world, notably U.S.A. and Canada, are a long way ahead of Australia in this respect.

The rise and development of

**the "Lightning" Grader**

removes the last obstacle in the way of efficient grading.

A visit to the "Lightning" Fruit Grader factory reveals that the proprietors, in advocating standardisation in fruit packing, have themselves carefully studied the same principle in laying out their factory to meet this modern need amongst fruit producers.

Here graders are made to standard specifications, and so great has been the demand for these machines that the factory is now working at high pressure to meet the ever-expanding business. That the "Lightning" Fruit Grader is correct in principle might be expected, seeing that it was developed by practical growers—men with distinct ability in mechanics.

Then, having the principle right, there come the practical considerations of so constructing the machines as to win the approval of the people most concerned—the growers.

From first to last, and in every detail, the manufacturers insist on quality of material and workmanship. The machines are built to last a lifetime. Even where a "Lightning" fruit grader has been installed to meet the modest needs of a grower whose production has not reached its zenith, the grower can have the satisfaction of knowing that as his crops increase, the grader can be enlarged —because of the standardising of the parts. There is thus no need to scrap one machine in order to put in another to do increased work.

**The primary principle**

in the "Lightning" Fruit Grader is, there shall be no bruising. Fruit is fed either direct into a hopper (as in the smaller machines) or by means of conveyors. In the latter instance the fruit is gently turned over on its way to the sizing belt. At this stage the fruit can be inspected, rejecting all bruised, marked or deformed specimens. Passing from the conveyors, the fruit is carried along an endless belt alongside a graduated rubber roller. The roller has an outward and upward motion, which allows the fruit to be gently carried along the belt until it rolls naturally into its correct bin. The rubber rollers are acid proof, and with care will last indefinitely. The belt is specially selected and durable. The woodwork is of the finest seasoned timber, carefully turned and fitted, the several joints being screwed and bolted together to make a workmanlike job. The wearing parts are solidly constructed on scientific principles, the whole aim of the makers being quality first and all the time.

If one were to ask is the "Lightning" Grader cheap, the answer would be "yes" and "no." Yes, because in the installation of this machine, the first cost is the only cost, and once installed, it becomes

**a labor saver,**

and a money earner immediately. One well known practical grower stated that in the saving of labor, the "Lightning" Fruit Grader paid for itself in three weeks. This testimony is by no means isolated.

But as regards its first cost, the manufacturers, with their good name at stake, and the emphatic assurance that the machine fulfils all reasonable requirements, having utilised only the best quality materials and workmanship, avoiding anything "cheap" or shoddy. As regards quality, every detail is studied, including the canvas for the bins, especially as in the newer models the bins are so constructed as to provide for their gradual filling as the fruit enters the bin in its graduated section. The bin has strong flexible springs, which gradually "give" as the weight of fruit increases. This maintains the essential principle previously mentioned of eliminating bruising.

As illustrating this principle, no more fitting example could be given than is expressed in the grading machines supplied to fruit canning factories where

**perfectly ripe fruit**

is handled on roller conveyors, gently turned over to show all sides, thus exposing any possible defects (only perfect fruit being desired for high quality packs). Then, as the fruit is delivered on to the belts to go through the sizing process, the same gentleness is apparent. The delivery of the ripe fruit from the bins in the receptacles for conveying to the women operators maintaining the essential feature throughout. Thus, the "Lightning" Fruit Grader has earned a reputation of which the makers are justly proud.

**The Factory.**

The factory is well laid out on model lines, the latest and most up-to-date high-class iron and wood working machinery having been installed, ensuring factory costs being reduced to their minimum.

At the time of our visit, large stocks were being worked up, each employee having attained skill in his specialised branch. It is because of quantity production, the quality of the material, and the skill of the workmen (coupled, of course, by the excellence of the design) that the "Lightning" Fruit Grader has won its way to the forefront by sheer merit, maintaining the confidence and goodwill of users.

**Royal Show.**

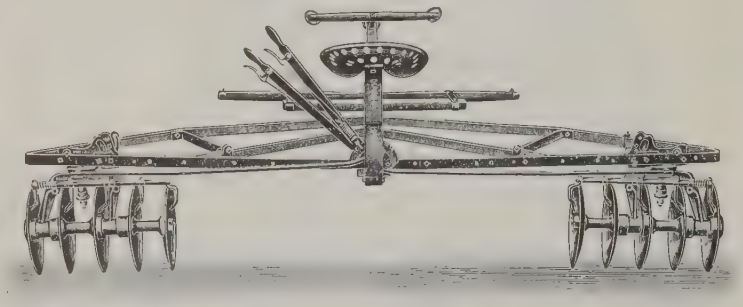
The "Lightning" Fruit Grader will be demonstrated in actual operation at the Royal Agricultural Show, Melbourne, the position being at No. 65 Plummer Avenue—in the same position that has been held for some years past. Graders are also made for Potatoes. Fruitgrowers, farmers, factory managers and directors are cordially invited to inspect the "Lightning" Grader stand, when demonstrations will be gladly given. A cordial invitation is also extended to all to inspect the factory at Collingwood.

By Appointment to His Majesty the King

BRITISH BUILT **MASSEY-HARRIS** HIGH GRADE

# FARM ORCHARD and VINEYARD MACHINES

EVERY MASSEY-HARRIS FARM ORCHARD and VINEYARD MACHINE is the product of our seventy-eight years' experience in making machines that have given universal satisfaction. You can depend upon it being designed properly, built correctly, to do its work efficiently, and give many years of satisfactory service.



**Massey-Harris Orchard Reversible Disc Harrow, Equipped with Extension Frame.**

It is reversible—covers the roots or not, as you wish. The Gangs are interchangeable in their position on the frame so as to throw the soil to or from the trees and vines. It is adjustable to any depth, in the middle or at the ends, by means of gang hinges. Levers adjust each gang separately to any angle, regulating the amount of soil thrown. In Grape cultivation the Massey-Harris cultivates all of the ground, which plows cannot do. It is also a good side-hill harrow.

The steel frame is in one piece. Strong arches or yokes support the gangs; separate bearing-boxes take up the friction. Equipped with ten 16-inch discs and extra discs and spools can be supplied for converting it into a twelve-disc size.

The harrow with ten discs cuts 5 ft. 6 in., and when the long extension frame is used the machine measures 10 ft. 1 in. in width. With it the operator can cultivate under the trees, close to the trunks, and the horses do not interfere with branches or injure the fruit. The extension will save many times its price.

The **Massey-Harris Organization** is world-wide, and offers a complete line of **Farm, Orchard and Vineyard Machines** specially designed for Australian conditions and embodying the latest improvements derived from extensive experience in other progressive fruit growing countries throughout the World.

These may be seen in the comprehensive exhibit during Show Week at the address below. You are cordially invited to inspect. If you cannot call, write for particulars of your requirements.

Enquiries will be answered promptly, fully, and with a desire to be of service to you whether you buy or not.

M-H The Brand of Superior Quality.

## Massey-Harris Co. Ltd.

## 570-576 Bourke St., Melbourne

M-H The Brand of Superior Service.

BRANCHES IN ALL STATES.
AGENCIES EVERYWHERE.

# Orchard and Nursery Spraying.

## Modern Equipment is Necessary.

## The "Bave-U" Motor Pump Appreciated.

APPRECIATION may be expressed in many ways, but best of all by an "encore." How dear to the heart of the artist is the applause which thunders until the second appearance on the stage.

The kind of appreciation the tailor likes best is for his customer, not simply to say how pleased he is, but to order another suit.

These simple illustrations are indicative of our varied form of human experiences. The fruitgrower likes nothing better than to maintain the quality of his brand, and to retain his customers, making friends of them because of the repeat orders, and the mutual satisfaction which is thus expressed.

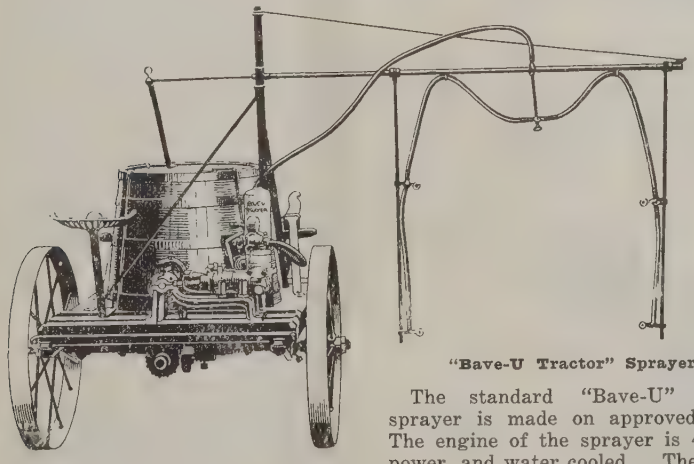
Similarly, when it comes to the providing of the fruitgrowers' equipment, the manufacturer recognises that there is no higher commendation than for the order to be repeated.

This leads to the statement that the "Bave-U" — (the pioneer) — motor pump has met with such a cordial reception from fruitgrowers that the usual thing is for the grower to be so satisfied as to order his next outfit at the same place, and to recommend to his friends the merits of the machine which he has learned by experience to trust.

Not that the "Bave-U" motor pump has such a short life as to need being renewed at an early date. Far from it.

As a matter of fact, some growers have had the same pump continuously in operation for seventeen years. Nevertheless, as extensions are made in orchard properties, the necessity for enlarging spraying facilities becomes apparent. Then is the time when the satisfied user repeats his order.

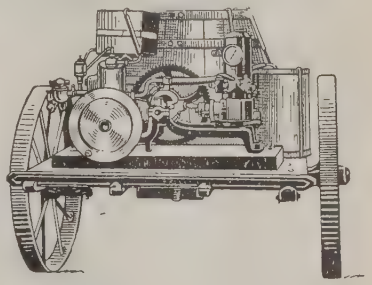
It is worth mentioning in this connection that the Toomuc Valley Orchards Pty. Ltd., of Pakenham, Victoria, have had no less than 13 "Bave-U" power sprayers. Growers who have given "repeat" orders include Young Bros., Ardmona; T. E. Jones, Narre Warren; G. A. Syme, Killara; T. H. Petty, Doncaster; E. Stocks, Drouin, and many others, including Mr. H. G. Brown, Auckland, N.Z. These facts are of great interest, indicating, as they do, the confidence which users have in the "Bave-U" power sprayer for consistent orchard work.



"Bave-U Tractor" Sprayer.

The standard "Bave-U" power sprayer is made on approved lines. The engine of the sprayer is 4-horse power, and water cooled. The crank shaft is cut from a solid block of steel. The bearings are made from phosphor bronze, and are exceptionally long. The pump is of the duplex type, i.e., 2 separate pumps work side by side. This is more expensive to manufacture, but its advantages over the double acting pumps are appreciated. A smaller machine, with 3 h.p. engine, and single plunger pump, is also made. All models are supplied on either 2 or 4 wheeled transports.

The machine illustrated on this page termed the "Bave-U Tractor" sprayer, is used for spraying vines, etc. Power is obtained from the wheels of the transport while in motion, both wheels being used. The equipment is so geared as to prevent any undue strain on the horse, while walking between the rows, and turning corners. At the same time the sprayer develops up to 250 lbs. pressure, operating five nozzles simultaneously.



"Bave-U" Duplex Power Sprayer.

Extension piping, which is connected with the sprayer, enables a row of vines to be sprayed on both sides and from the top. The "diggers" on the dried fruit blocks have, in their picturesque language, termed this the "aeroplane" sprayer.

The "Bave-U Tractor" sprayer for vineyards is well known and appreciated. The pump is of the well known duplex patent. This vineyard equipment is so mechanically arranged that it can be changed into a power sprayer at any time by adding the engine. The firm also makes a useful hand pump.

### Display at the Melbourne Show.

At the Royal Agricultural Show, Melbourne, from 17th to 26th September, there will be an interesting display, which should be inspected by all fruitgrowers. Their stand is at No. 97 Smith-street. Any readers desiring further information on power spraying for the running of motor engines are invited to write to the manager of the firm, Mr. J. E. Russell, "Bave-U" Motor Sprayer Works, Box Hill, Victoria.

# Making Better Use of our Fertiliser Resources

**The Importance of Nitrogen.**

**(Contributed.)**

THAT available phosphoric acid is the limiting factor in crop production in Australia—particularly in relation to the production of certain staple crops, as, for instance, wheat—no one will deny, but so frequently has this statement been reiterated, and so remarkable have been the results attending the use of phosphoric acid fertilisers, on such staple crops, that there are today many horticulturists carrying on their "business" with a deep faith in the single constituent fertiliser. This tendency on the part of the Australian agriculturist and horticulturist to regard phosphoric acid fertilisers as the sole crop and soil requirement, is pointed out by Mr. Catton Grasby in his book, "Principles of Australian Agriculture."

If the harvest could be controlled, and a crop taken from trees and vines, say, once in two or perhaps three years, this course might be safe, but when crops are a regular yearly occurrence, soil fertility and the crop grown demand something more than a steady diet of the single constituent manure.

There is a steady development towards the increased use

**of nitrogenous manures**

in Australia, and it is pleasing to note that at a time when so much attention is being focussed on the necessity for domestic resources to be developed to the fullest possible extent, our locally produced nitrogenous manure—sulphate of ammonia—is achieving an excellent reputation as a means to increased yields of better quality produce.

Formed just over four years ago, the Australian Sulphate of Ammonia Propaganda Committee has done much to give Australian agriculturists and horticulturists an idea of the value of a fertiliser which they had previously regarded with indifference. So little was it valued locally, that by far the major portion of the Commonwealth production of sulphate of ammonia was shipped overseas.

A change has been wrought since the commencement of the Committee's activities, however, for within the last four years, so appreciative have our own fertiliser users become, that the Australian consumption of sulphate of ammonia has doubled.

For the mixed fertiliser trade there is nothing that can give quite the same results as sulphate of ammonia, as the source of the supply of nitrogen. It is highly concentrated, possesses excellent mixing qualities, is water soluble, and is obtainable at a price, which, on the basis of unit values of plant food content, makes it a much

**better commercial proposition**

than other possible nitrogen carriers. Being of inorganic origin, it possesses no toxic properties, and exerts no influence towards the perpetuation of plant diseases and weed seeds.

Last year these columns called attention to the results following the application of sulphate of ammonia in varying quantities on the block of Mr. E. A. Creaton, of Billabong, via Mildura. Again this year Mr. Creaton has obtained similarly sound commercial results. The sum and substance of the report of the trials submitted by Mr. Creaton to the Propaganda Committee is as follows (to quote his own words):—"Thus 1 cwt. of sulphate of ammonia costing at Irymple, 17/6, gave an increased return of 6 cwts. of Sultanas (dried), worth £40 per ton, equalling £12, or a profit of £11/2/6 per acre. **I have therefore ordered through the Irymple Packing Co. for blocks worked by me 88 bags—5½ tons of sulphate of ammonia—for the 1925-6 season's manuring."** Two season's trials convince Mr. Creaton of the advantages of sulphate of ammonia, and he becomes a "regular customer."

When ordering fertilisers for future use take advantage of the opportunity to enquire from your fertiliser dealer, what a 1 cwt, application of sulphate of ammonia over your holding will cost. The result from such an expenditure will surprise you.

## How are we going to maintain the Crop-Producing Power of our Land ?

Whether we think in terms of the whole Commonwealth or merely in terms of our own home farm or orchard, this problem is all-important.




The problem comes nearer solution with the judicious use of SULPHATE OF AMMONIA, the cheapest and best source of the supply of nitrogen to all farm and orchard crops, when used either alone as a top-dressing, or in mixtures containing phosphoric acid and potash.

# Spraying De Luxe.

## Where Mechanical Genius Meets Fruitgrowers' Needs at the Show Ground.

### At the Royal Show.

Stand No. 43 will, this year, house the world's best spraying machine, and visiting fruit men and farmers would be well advised to spend half-an-hour or so studying the unique features of this remarkable plant.

The orchardists and vignerons of Australia, and for that matter, every other fruitgrowing country of the world, have learned in the hard school of experience that more than ordinarily good qualities need to be built into a spray outfit if it is to give the fullest degree of satisfaction. After all, what mechanical contrivance is called upon to stand up to such rough, trying work? Exposed day after day, and in many cases night after night, to all sorts of weather conditions, pulled about over rough, broken ground, and up and down steep inclines, and showered with various forms of corrosive spray mixtures—small wonder that many big and experienced machinery concerns have endeavoured to build THE Outfit, without success.

Foremost amongst those manufacturers who have for years and years concentrated upon the production of a good spray outfit, persistently studied essentials and brought out improvements to meet them with every new season, are the Cooper Engineering Company Limited, whose world-famous plant, the Cooper "Perfect Balance" has enjoyed pride of place in by far the majority of fruit districts for many years. But never before did a new spraying season see so many improvements in the Cooper outfit as this one, and no better testimony of the practical value of these improvements could be found than the daily appearance of greater and greater numbers of outfits en route to the goods yard at Spencer-street for consignment to Shepparton, Mooroopna, Pakenham and other centres.

The main items of interest about the plant include the powerful new-style horizontal-pattern engine, cleverly designed pump, low-down 100-gallon vat, so slung on a one-piece through axle as to make the balance of the outfit perfect; large wrought-iron wheels with broad rims, compactness. In short, a combination of the steady features of a 4-wheel outfit with the flexibility and easy-to-pull, easy-to-operate advantages of the 2-wheeler.

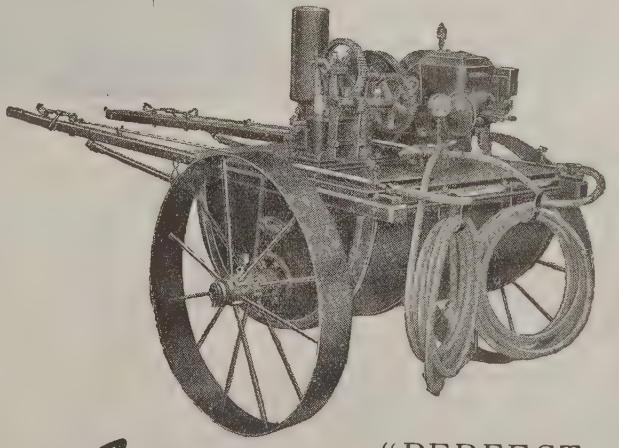
Certain it is that both old and new features will create enthusiasm and praise, and the announcement that the new sprayer is to be exhibited at the forthcoming Royal Show will be welcomed by all fruitgrowers who intend coming down. A record attendance is expected daily at Stand No. 43, which is in Lennon Avenue, opposite the Sheep Pavilion, and which will undoubtedly form a rendezvous for orchardists and vignerons from all parts of the Commonwealth, whose keen criticism and frank opinions will be well worth hearing.


# At the Royal Melbourne Show—

— see for yourself —

## The Sprayer you have heard so much of.

It will be worth your while to learn all about the latest ideas embodied in the **Cooper "Perfect Balance" Outfit.** New simplified Engine, improved Relief Valve, Solid Steel Axle, and other New Features make the "Perfect Balance" Sprayer more efficient than ever.



— STEP ALONG TO STAND 43 —

**Opposite the Sheep Pavilion**

*If you cannot see it at the Show, write to—*

**COOPER ENGINEERING CO. LTD.**

*350-358 Spencer St., Melbourne*

...or...

*129-131 Sussex Street, Sydney*

AGENTS IN EVERY STATE.

Cooper "PERFECT BALANCE" ORCHARD SPRAYER

*"The Best Sprayer Made"*

# The Cold Storage of Fruit.

## A Profitable Investment.

## Privately Owned Stores a Success.

### A Review of the Operations of R. Werner & Co. Pty. Ltd.

ASSUMING that a big proportion of orchardists operate their properties with family labor, there is no doubt that the orchard is the right place for his cool store. The convenience and great saving of time are not the only advantages, as he may pick and pack his fruit according to his own ideas without loss of time and labor involved in carting and delivering to a cool store away from the orchard.

The stacking of fruit in the chamber is a matter about which he may use his own discretion, and not be bound by any regulations. He can also personally exercise a better control over the condition of fruit when in storage.

As far as running costs are concerned, these are very low, especially with a modern crude oil engine, about £5 to £6 per 1,000 cases per season will cover the cost of fuel and lubricating oils. In districts where the Yallourn power has become available, it will be worth while enquiring into, has electricity has many advantages.

There is no need for an engineer in a private cool store, the average orchardist who is familiar with spray pumps, tractor and motor trucks, would find his refrigerating plant the smoothest of all to operate.

Growers who have had experience with private stores are emphatic about their advantage.

**Co-operative Stores.**

Where the orchards are small, the growers will find that a co-operative store will be of great benefit to them.

These are operating successfully from 10,000 to 140,000 cases, and under the Fruit Act 1917 finance can be arranged from the Government.

**Canning Factories.**

The Shepparton Cannery will have a cool storage capacity of about 42,000 cases available for the incoming season. With the increased export and consumption of canned fruits the cool store provides the way out to extend the canning season, and cut the loss that is sometimes occasioned by hot spells.

The Ice Making Plant will operate in conjunction with the store, and will prove of great value to the town and surrounding districts.

**Citrus Fruits.**

Refrigeration extends its advantages to growers of citrus fruits. The storage of certain varieties of Oranges is a proved success, and as with the Apples and Pears the store should be on the growers' property, thus eliminating much of the handling and damage during transport, which would no doubt shorten the storage life of the fruit.

Experiments conducted by the Departments of Agriculture in the several States show conclusively that Oranges and Lemons can be successfully stored for months. Some varieties have a longer cold storage "life" than others, but it is certain that it is possible to place citrus fruits profitably in cold storage in order to extend the marketing period, and to hold back supplies when the markets would otherwise be glutted.

**Cool Storage Developments.**

The development of cool storage has been one of the principal factors in stabilising the Apple and Pear industry in Victoria. The cool store itself is a profitable commercial proposition to all interested. In addition it adds to the value of properties in the district which it serves.

South Australia, too, has seen large developments in cold storage equipment, while the value of cool stores for fruit has long been recognised in New Zealand. Organisations of growers in Tasmania, N.S.W., and W. Australia are now enquiring keenly as to details relative to the erection of cool stores, i.e., the most suitable sites, cost of erection and the general running of the plants.

A cool store for fruit is now recognised as an essential to every progressive fruitgrowing district. Information regarding machinery, finance, and all essential details will be gladly made available by Messrs. Werner & Co., 80 Burnley-street, Richmond, Vic., who for many years past have made a special study of the subject, and have been responsible for the successful installations of cool stores throughout Australia and New Zealand.



Type of Cool Store erected in Victoria.

**Royal Agricultural Show.**

The firm of R. Werner and Co. Pty. Ltd., will gladly give estimates and other information in respect to fruit storage, and invite growers to visit their stand at the Agricultural Show.

The stand is at the corner of McCracken Avenue and Lobb Street, in conjunction with Messrs. J. S. Corden & Co. Pty. Ltd.

A "Werner" Plant may also be seen in operation at the Agricultural Department's exhibit of orchard produce.

A cordial invitation is also extended to visitors to view the Company's Workshops at Burnley-street, Richmond.

## CANNED FRUIT.

### Big Sale Clears Australian Export Pack.

### Government Grants Freight Subsidy.

The sale of 150,000 cases of Australian canned fruit to a London buyer has cleared the market of the exportable surplus, leaving the way clear for canneries to make preparations for handling the canning season's fruit.

This large sale was made possible because of considerable freight reductions negotiated both by the Australian Fruit Canners' Association and the Hon. the Minister of Markets, through the Commonwealth line of steamers.

A freight subsidy was granted by the Federal Government to the extent of £15,000, the freight subsidy being 9d. per doz. on Peaches, and 1/- per doz. on Apricots. No freight subsidy was allowed on the Pears exported.

Growers of canning fruit, while grateful for this measure of assistance, state that had the "bounty" been given earlier, i.e., before the last canning season, much fruit might have been saved; committees have been formed to approach the Government requesting an early statement of the Government's policy regarding bounties for the coming season's pack.

# Victoria.

## BERRY GROWERS.

### Frost Damages Passion Vines.

Berry growers at Silvan (Vic.) announce their prices as follows, per 12 lb. bucket:—Strawberries, 7/6; Raspberries, 7/6; Loganberries, 5/-; Blackberries, 4/6. The season commences in November. Those desiring the fruit should send the amount covering the cost of fruit plus railway carriage to W. G. Banfield, P.O., Mt. Evelyn, Vic. The President of the Association, Mr. A. McCully, and the Secretary, Mr. Banfield, hase been in consultation with the Railway Commissioners regarding the display of a poster on railway stations, setting forth the foregoing details and the railway freights to suburban and country stations.

Hard frosts during August severely damaged the Passion-fruit vines and crops in the Dandenong Ranges.

## COLD STORAGE AT BEECHWORTH.

**Speaking at the opening of the Beechworth Horticultural Show, the Hon. A. M. Zwar, M.L.C., stated that the Murray Breweries were experimenting on a cool storage scheme for storing 1,000 cases to enable fruitgrowers to lengthen their marketing season. The Minister for Agriculture, Mr. Bourchier, was sending an expert to advise as to methods and temperature, and, if successful, the Murray Breweries would be able to provide cool storage for 20,000 or 30,000 cases of fruit.**

**There were excellent displays of flowers, fruit and vegetables at the Beechworth Show. The committee is to be congratulated on its success. The Hon. Sec., Mr. Neil Sutherland, showed considerable organising skill.**

## THE WOOLLY APHIS PARASITE.

It is only a little over a year ago that this parasite, **Aphelinus mali**, was received in Victoria. Supplies were quickly bred and distributed to many orchard districts. From reports received, it is quite evident that the parasite is doing good work in Victoria, and that it seems to be holding its own in the southern climate. It is hoped that, during the coming season, its value will be felt in many districts.

It is undoubted that the wasp is doing excellent work in New Zealand. After four years of breeding, this work is being abandoned at the Cawthron Institute of Scientific Research, as the parasite has spread throughout the length and breadth of the Dominion. It is further stated that the parasite has done such marvellous work that small stocks only are being bred, in order to keep it going at the Institute for scientific observation. One interesting feature reported, is that as a result of comparative freedom from Woolly Aphis, the Apple trees are making much better growth; and it is anticipated that the trees will bear larger quantities of fruit, now that the laterals are free from Woolly Aphis.

This optimistic report augurs well for Australia, and we can hope for good results in the immediate future.

South Australia is to be congratulated on having experimental orchards at Blackwood (Adelaide Hills), and Berri (River Murray). In this issue is published an interesting article from the pen of Mr. Rodney Fowler, manager of the Government Experiment Orchard at Blackwood, regarding the non-setting of Apple blossom and the falling of partially developed fruit. There are over 3,000 varieties of fruits at Blackwood.

## SUNSHINE HARVESTER WORKS.

AN annual source of interest to the man on the land who visits the Melbourne Royal Show is the comprehensive exhibition of farm implements and machinery by Messrs. H. V. McKay Pty. Ltd., of Sunshine. No agriculturist who desires to keep abreast of the times can afford to miss the opportunity of inspecting the splendid and varied range of mechanical requirements for the farm and orchard.

**Mouldboard and disc ploughs,** set and stump jump, are shown in great variety. Small ploughs and disc harrows

**for the orchardist,**

and a fruit-spraying outfit showing the gun, the pistol and the rods, will merit inspection. A sheep jetting attachment will interest the grazier.

The engine section embraces a comprehensive selection, ranging from 1½ H.P. to 10 B.H.P. in stationary and portable types. These are all shown in working models, and cover every class of power required by the farmer.

The pavilion is equipped with reading, writing and telephone facilities, and not only the firm's clients, but all country visitors will find the Sunshine Stand a convenient rendezvous to foregather and chat over congenial subjects during the progress of the Show. A very hearty welcome is extended by the firm to all.

Mr. A. A. Watson, Director of the N.S.W. Soldier Settlements, and Mr. A. Smith, Lands Department (N.S.W.), visited Victoria during August, inspecting various cool storage and dehydrating plants, and generally inquiring into marketing methods. The latter phase is now taking definite shape, as the produce from N.S.W. soldier settlements orchards is coming on the markets in increasing quantities. In particular the Prune crops are showing increases.

Ill fares the land, to hastening ills a prey,
Where wealth accumulates, and men decay;
Princes and lords may flourish, or may fade;
A breath can make them, as a breath has made;
But a bold peasantry, their country's pride,
When once destroyed, can never be supplied.

—Goldsmith.

# Land Clearing Operations.

## Valuable Labor Saving Devices for Tree and Stump Pulling.

### Efficiency of Trewhella Bros. Implements.

"AGRICULTURE is the soul and chief support of empires." Thus wrote Napoleon Buonaparte. And we might add that the soul of agriculture is a contented rural community.

One of the best methods for assisting in the establishment of a contented agricultural community is the inclusion in the farm equipment of labor saving devices. This applies equally to domestic equipment for economic home management to assist the women folk, as well as to the gear and appliances for the various departments of out-door and field activity.

Members of the fruitgrowing fraternity owe it as a duty to themselves to consider every method for reducing labor and reducing costs—vitally important topics now and at all times. Probably in no avenue of agricultural production is the need more insistent for the utilisation of labor-saving devices, and in this respect a tribute must be paid to those capable experimenters who have evolved new forms of mechanical efficiency.

In this connection the implements patented and manufactured by Messrs. Trewhella Bros., of Trentham, Vic., are of unique interest. By reason of their power, efficiency and economy, the tree and stump pulling devices of Trewhella manufacture are largely used throughout Australia and New Zealand as well as in England, Scotland, Ireland, Europe, Canada, United States of America, Africa, the East Indies and elsewhere. This is surely a tribute to the value of the implements themselves, and a good advertisement for Australia.

In designing implements for use by fruitgrowers, farmers and contractors, Messrs. Trewhella Bros. have succeeded in producing such as are adapted to their particular needs. The names "Monkey" and "Wallaby" as applied to Messrs. Trewhella Bros.' grubbers and jacks are registered as trade designations.

**A Valuable List.**

In order of size, commencing with the smallest implements, they are as follows:—"Wallaby" Jacks (from 2½ to 6 ton lifts), "Monkey" Jacks (8 to 10 ton lifts), and the "Monkey" winch, which allows the operator to develop 260 times his own strength.

Each of these implements is designed for special classes of work. For instance, the "Wallaby" Jacks are serviceable for long rolling, clearing and stump grubbing, as well as for lifting according to their capacity—2½ ton, 4 ton, and 6 ton lifts. With the aid of a "Wallaby," one man can do a surprising amount of work in the way of clearing stumps.

The next sized implement—the "Monkey" Jack—is quite a favorite in its class. The 8-ton model is extremely useful for grubbing large roots and stumps, and the 10-ton implement, embodying all the good features of its smaller brothers, has capacities of its own, and has come to be appreciatively known as the "King" of grubbing jacks. With the aid of the "Monkey" Jack, a well known N.S.W. fruitgrower recently pulled a large stump, and pushed down four trees (the largest 2ft. 6in. through) in an hour and a half.

As may be readily imagined, these Jacks are exceedingly powerful. The distinguishing feature of the "Monkey" Jack is that the casing (carrying the lifting hooks) is short, and moves up the pillar instead of the casing remaining stationary, and the rack moving up as in other jacks. This gives the advantage of a much higher or longer lift, without unduly increasing the weight of the jack. The lifting hooks are at opposite sides of the casing, and so arranged that the top one will go low enough to take up the position occupied by the opposite one in the previous lift.

The "Monkey" grubber deserves special mention. With the aid of this implement a man is able to do clearing work quicker than with the jacks, thus saving much grubbing and root cutting. Its best work can be done when the ground is soft or too wet to use a jack or similar implement. In addition to its capacity to pull almost any tree or stump, the "Monkey" grubber can be used as a winch for many purposes.

Much thought, time, and experiment have been devoted to perfecting this machine, and its equipment of Snatch Block, Grab and Rope attachments, making all the details as simple and convenient as is consistent with strength, to stand the severe strains such as a machine is subjected to.

The "Monkey" grubber is worked by hand power, the sector bearing ratchet gear applied to a steel winding drum allows the operator to develop 260 times his own strength. The machine is very compact, and is run to the job like a barn truck, or in rough broken country is easily carried by two men.

Gearing is automatically controlled so that it matters not in what position the machine is placed, it will work equally well. So long as there is a place for a firm footing and room to extend the arms forward, the "Monkey" grubber develops its power. A fast speed for light pulling, and taking up slack is provided, while the equipment is very complete, 185 feet of British steel cable, fitted with simple hood and loop couplings that are coupled in a moment. Sturdy Snatch Block and Rope Shortener are included in this complete grubbing equipment.

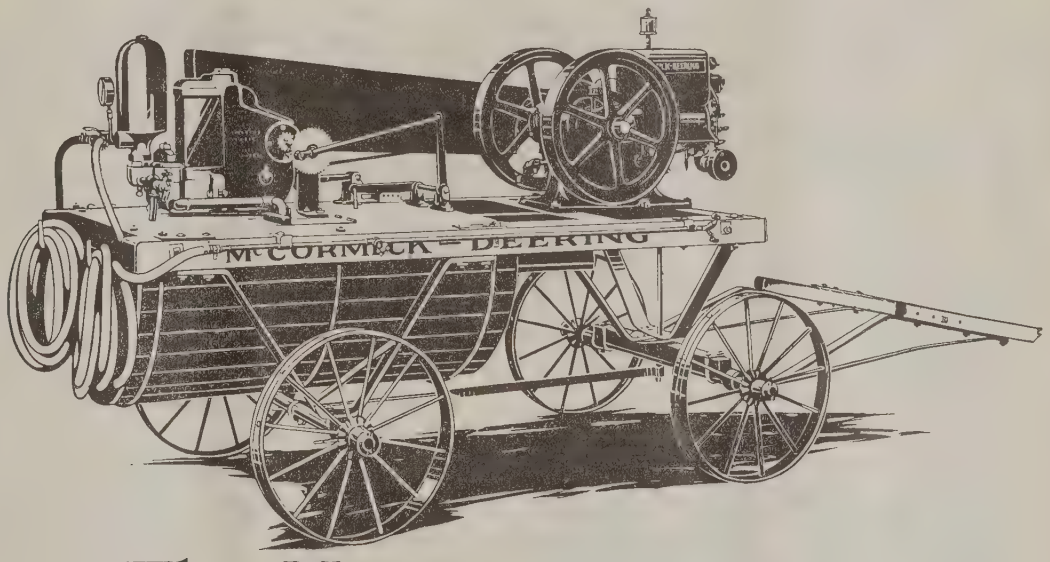
A noticeable feature is the absence of splices, loose pins and shackles. These had been eliminated because splices difficult to make under ideal conditions would be almost, if not wholly, impossible where these machines are popular—simple hook and bands with taper wedges are fitted to the rope ends, they can be put on without tools, and in much less time than it takes to make a splice. Also, they have the advantage of being always on the rope, while shackles and pins are easily lost.

Trewhella implements are famous, not only in Australia, but in many other parts of the world. Whilst the Head Office is at Trentham, Victoria, manufacturing is also carried on at Birmingham, England, from whence they are distributed throughout the U.K., Ireland, Canada, U.S.A., the Continent, and elsewhere. The following interesting paragraph recently appeared in the "Daily Mail," London:—

> "To make way for the extension of the City and South London Railway from Clapham Common into Surrey, trees were removed at Morden yesterday with unusual speed. By means of a monkey winch—an apparatus used in the Australian bush—an elm tree 65 feet high was brought to the ground in ten minutes. The winch was secured by a steel cable to a small tree, and another cable connected to the elm. Two men steadily tightened the cable and the tree fell. It was estimated that by old methods it would have taken three men three days to remove the tree and its roots. By the new method the roots were pulled out intact."

At the Royal Show, Melbourne, the full range of Trewhella Implements is shown. Fruitgrowers and all interested in land clearing operations are cordially invited to inspect.

*"Good equipment makes a good farmer better"*




# The New McCormick-Deering Power Sprayer

THE New McCormick-Deering Power Sprayer embodies many features of outstanding merit that will convince you of its worth and efficiency at spraying time. It is practical in design, sound in construction and is built to the same dependable standard that has made McCormick-Deering Farm Machines the choice of discerning farmers everywhere. It is light in weight, light in draft and can be relied upon to give satisfaction at all times.

**ENGINE**—*The motive power is supplied by a McCormick-Deering Engine of either 1½ or 3 h.p. size. The McCormick-Deering Engine has established a world-wide reputation for soundness and dependability coupled with an ability to give economical service whatever kind of work it is used for. Fitted with removable cylinder, built-in-magneto, enclosed crankcase, throttle governor, kerosene mixer and many other valuable features.*

**PUMP**—*The pump is of the Myers double-cylinder, back-geared, high-pressure type. All its working parts run in oil and are completely enclosed from dust or grit, a feature which makes for long life, safety and economy of operation. The cylinders are removable and are made of seamless, drawn brass, the gears and pinions are machine cut and the bearings and working parts are accessible and easily adjusted.*

**VAT**—*The vat is solidly constructed of thoroughly seasoned timber and is so designed that the centre of gravity is low, making the outfit especially suitable for hilly or rough country. It has a capacity of 75 gallons and is fitted with a pendulous agitator which sweeps the whole length of the vat preventing accumulation of the spray ingredients at the bottom of the vat and insuring a perfectly blended mixture.*

*Write for further information:*

**INTERNATIONAL HARVESTER COMPANY OF AUSTRALIA PTY. LTD.**

**543-555 BOURKE STREET, MELBOURNE**

*AGENTS EVERYWHERE.*

# How a Fresh Fruit Problem may be Solved.

**In this article, a grower makes a powerful appeal to orchardists to "get together" and solve the problem in a business-like way.**

**"Her pantry shelves were filled, row upon row, with bottles of the choicest fruit!"**

That is why I write this story.

And it had to be a pretty powerful urge that would influence me, a fruit grower, to write at all, any time!

But the sight of those unbroken ranks of "bottled health" standing shoulder to shoulder on those broad pine shelves set me thinking as never before.

To enable you to follow my line of thought, I want you to visualise the situation in which I found myself. A situation having as its central feature the "vision" pictured in the sentence with which I commenced this story, the sort of scene that "maketh the heart glad," and especially the heart of a fruitgrower.

On my recent visit to Melbourne, an old pal had invited me to his home in Camberwell.

At tea I was struck with the flavor and appearance of two kinds of preserved fruit that his good wife served us—particularly the Pears, which were served with cream.

I remarked upon their quality, and asked whose brand they were. Imagine my surprise when my friend's wife, with a smile of pride and amusement, bowed across the table with mock solemnity at my unconscious compliment and said, "Those, sir, are my own special brand!"

"You preserved them yourself?" I said. "Why, they're delicious!"

"Sure, they are," said (Jack, the husband) chiming in, "and after tea you shall have the pleasure of gazing on a pantry full of just such masterpieces as those you are eating."

And I sure did, as Cousin Jonathan would say.

There were Apricots, Peaches, Pears and Cherries, fruit salad with Passion-fruit, and at least two dozen bottles of Tomatoes.

But let the lady tell her own story.

"My husband bought one of Fowler's Patent Vacuum Bottling Outfits only a few months ago.

"The size we have is No. 2, and it really is handy because the steriliser is large enough to do 12 bottles at once.

"Besides the steriliser, the 'outfit' includes a thermometer, a dozen bottles that hold a pound and a half each, and a dozen that hold two pounds each, all with mouths three inches wide, and two dozen spring clips for keeping the lids and rubber rings in place during sterilisation, as well as a 'Book of Instructions.'

"Of course I have to admit the bottling part of it is perfectly simple; in fact, it is the most pleasant and profitable kind of fun, nothing hard about it. Our only regret is we didn't hear of Fowler's before!

"The bottles automatically and hermetically seal themselves in the steriliser, and you lift them out with the bottle tongs, and when cool take off the clips, and—There you are!

"We've bottled, altogether, six cases since we got the outfit, and we intend to do some more presently, so that we can 'Eat More Fruit' all the year round! I'm going to try my hand at jam next."

* * *

Six cases of fruit, bottled, in that pantry! Think of it, Growers. Just ponder on that for a moment, and you will see what it means to the fresh fruit industry.

Let's figure a bit—according to published estimates (250,000) two hundred and fifty thousand cases of soft fruit rotted in our orchards last year.

Now assume that only fifty thousand (50,000) women in Victoria possessed one of these handy "Vacola" bottling outfits, and did as this lady did—bottled only six cases of fruit each during the season.

It would mean that 300,000 cases of fruit would be turned to a profit instead of wasting on the ground.

In the hands of Victoria's housewives the Fowler's Vacuum Bottling Outfits would put the industry on its feet—for **the problem of how to spread consumption over 12 months in the year would be solved,** and, to my mind, this is the only scientific solution.

If growers of soft fruit are to get rid of all their fruit, not some of it, I repeat but all of it, in three or four months, and make it available for the use of consumers throughout the whole of the year, they must show the consumer how fruit may be preserved easily and cheaply for use when fruit is "out of season."

(Prospective consumers include every householder, boarding-house, boarding school, private hospital, hotel and cafe.)

In every fruitgrowing district there are Growers' Associations whose executives could efficiently handle this problem in conjunction with local co-operative societies.

They could organise case lot distributions (following upon small advertisements in the metropolitan and larger country papers) with the same ease and success as they have at Red Cliffs and Leeton organised fresh fruit distribution by the trainload.

These district Associations, or the Co-operative Societies, could become the accredited agents for Fowler's "Vacola" Bottling Outfits, and sell them to growers, who should bottle their surplus fruit for their own use and for sale locally; and to enquirers for case lots of fresh fruits—each of whom would be a prospective "fruit preserver."

The wisdom of this course lies in this—

A woman without a "Vacola" Bottling Outfit is merely a one-case buyer.

Sell her one of Fowler's Outfits. You immediately change her into a potential six case buyer!

She can handle the fruit now. She couldn't before.

Individual fruitgrowers can solve their own problem this way, for all have friends or relatives in the cities.

Bring this method under their notice; point out how Fowler's Vacuum Bottling method will help you, and will give them delicious fruit bottled either in water or syrup all the year round.

Fowler's, Burwood-road, Hawthorn, will be only too glad to supply any grower with pamphlets and full information about their method of bottling. Take a grower's advice and write them about it—NOW!

**Or approach your local storekeeper—he knows all about these outfits.**

When you come down for the Show, do not miss calling at Fowler's New Stand.

**It is in their old position in the Dairy Machinery Pavilion.**

There you will see one of the finest displays of bottled fruits and vegetables to be seen anywhere.

When you have inspected that, have a talk with their representative, verify all I have said, and get a bundle of pamphlets on the outfits for distribution amongst your friends. You will come to the same conclusion that I have come to, namely, that this "Vacola" fruit bottling idea is "a world beater," and is the best solution to the fresh fruit industry's problem you have come across for years.

Then you'll do as I have done—**buy an Outfit—"and see that your fruit does not rot on the ground next year!"—Advt.**

# September Gardening Notes

## Vegetable Culture.

*Reprinted from the "Garden Lover"*

THE SEASON FOR SPRING SOWING is now at hand, and operations should be in full swing for the preparation of summer vegetables.

**Sow and Plant.**

Beans, (Broad, for last sowing), and French, Broccoli, Cabbage, Cauliflower, Celery, Leek, Melons, Parsley, Peas, Pumpkin, Salsify, Scorzonera, Spinach, Squash, Tomato and Vegetable Marrow.

Root crops are unsurpassed for their serviceableness in remaining a long time in the ground, and are also excellent for food value. Sow largely,—Beet, Carrots, Parsnip, and Turnip.

Prepare for the hot weather by planting salads extensively. Health is wealth, therefore be sure that good supplies of Lettuce, Radish, Onions, Mustard, Cress and Cucumber are sown.

Potatoes planted now will be ready for use almost as quickly as those put in the ground during July, as they are in a more forward condition, and the ground is commencing to get some warmth in it.

**Make Plantings of Tomatoes.**

A few Tomato plants set out this month, followed by a few more next month will serve to supply the wants of the household. Get the ground well dug over, digging in well-rotted stable manure.

A method which often saves a lot of disappointment, is to harden off the young plants in pots first, instead of transplanting straight out from the boxes. When the stems commence to turn a bluish color they will be sufficiently hardened off to plant out. The danger of the young plants dying off is avoided, and better results can be anticipated.

**Cape Gooseberries should be more Generally Cultivated.**

For Preserves, the Cape Gooseberry has no equal, and instead of being a luxury, they can be within reach of all, as they will grow and produce a crop under almost any conditions. In Western Australia they are extensively grown.

The fruit is fit for dessert, and also makes a delicious jam or jelly.

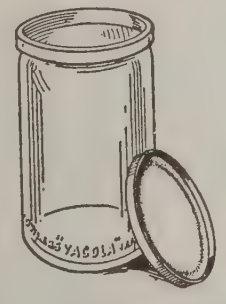
Sow seed now in seed-pan or warm border, and prick out the plants when fit to handle, so that they will stand about 3 feet apart. Keep weeds down, and stir the soil occasionally. The plants will last for about ten years and each year the crop improves.

After first frosts, prune back close to the main stem, which prevents straggling, and ensures a good growth of new wood.

The fruit ripens all through Autumn and Winter, and crops are very prolific.

The middle of this month is quite early enough to commence sowings of French Beans. The earliest variety is Emperor William. It comes in fully 3 weeks before Canadian Wonder, and has very long, broad pods of excellent flavor.


# Fowler's "Vacola" Jam Bottling Outfit

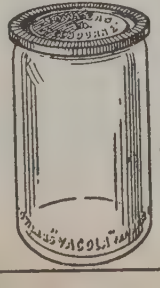


"VACOLA" JAM JAR,
Showing Cover and Waxed Paper Lining.

"VACOLA" SEALING MACHINE,
Seals 1-lb. and 2-lb. Jars



The Jar is placed in position in the machine, the Cover adjusted on top, and a sharp, quick pressure applied on the lever handle. This seals the Jar simply and securely



"VACOLA" JAM JAR
Sealed with "Gripard" Cover.



TO OPEN: The cover is easily tapped off with a flat piece of wood, and may be used over and over again.

In addition to our popular Fruit Bottling Outfits we are demonstrating

## The "VACOLA"
## Jam Bottling Outfit

AT OUR NEW SHOW STAND IN THE DAIRY MACHINERY PAVILION AT THE ROYAL AGRICULTURAL SHOW GROUNDS.

Come and see how simply and effectively the Jam Making problem has been solved —

—or write for full particulars.

ALL LEADING STORES

Manufactured by

**FOWLERS PTY. LTD.**
Burwood Road, Hawthorn, Vic.

# Machinery for the Canner and Jam Manufacturer

## Automatic Can-Making Machinery. Fruit Canning Machines.

## High Speed Jam Filling and Closing Machines.

WITH the rapid increase in production of canned fruits in Australia, it is gratifying that a firm of Australian machinery makers is able to supply appliances and machines embodying the best methods for ensuring "quantity packing" at the lowest labor cost.

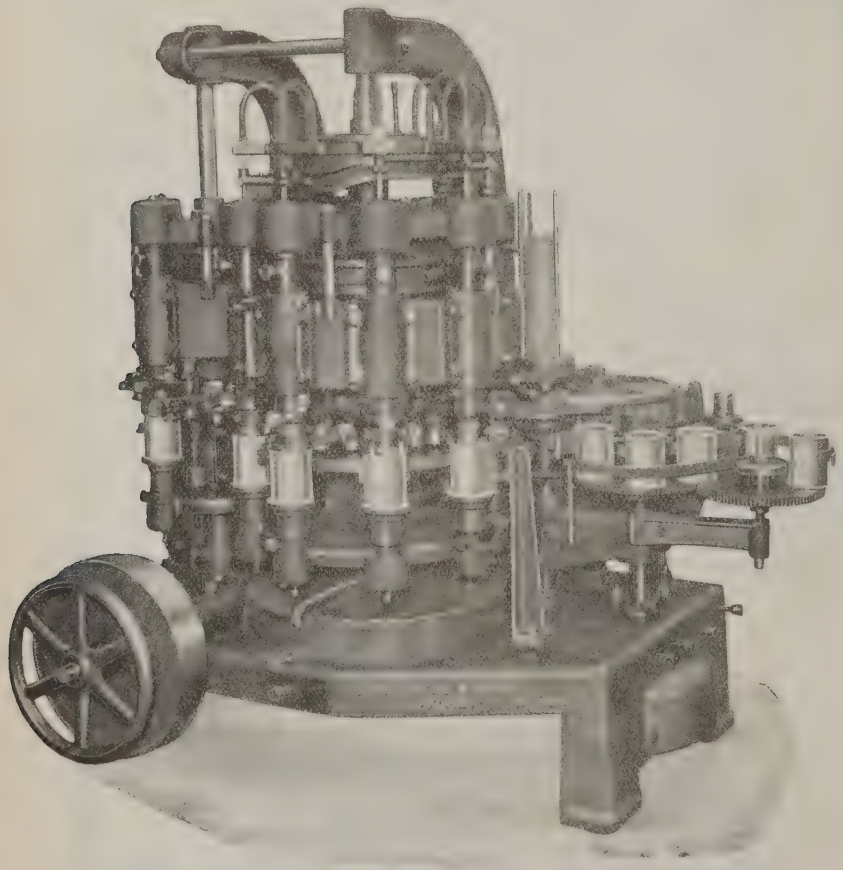
The fruit canners of Australia have, during the last few years, achieved great success in putting on the world's market a pack that is recognised as being superior in every way, and on every hand the desire is to use the best machines.

**Can-making machinery of Australian manufacture is giving good satisfaction wherever installed.**

**Most of the leading canned-fruit processors now have installed machinery made by John Heine & Son Ltd., Sydney.**

**The latest attachments are fully up-to-date, the makers being in the closest touch with all new developments.**

**The firm sets a high standard on its workmanship, and on merit alone has won the confidence of users.**



No. 110 D Super Seamer.

The operation of closing fruit tins and jam tins is one requiring the most particular attention in the country. On this page is illustrated the **No. 110D Super Seamer,** manufactured by John Heine & Son Ltd., of Sydney, New South Wales. This machine, it is stated, embodies features not hitherto attained by any other maker. The cans are taken with a smooth continuous motion right through the machine: they remain on one level right throughout the operation. The seaming or closing operations are performed as the cans are carried through. The can does not stop for seaming.

In this way is embodied perfection in seaming machines, which has long been sought for, namely, easy continuous motions; slowly revolving seaming rollers; no delay or stopping of the can, and, therefore, **a perfect smooth-running non-spill machine.**

This machine will fill soups, jams or fruits up to a capacity, if required, of one hundred (100) cans per minute.

Messrs. John Heine & Son Ltd., manufacture the full lines of automatic can-making machinery, and also the full range of fruit processing apparatus, such as continuous agitating cookers, lye peach peeling machines, peach washing machines, blanchers, exhausters, etc.

A new line of automatic can-making machinery for the Shepparton Preserving Company will shortly be installed by John Heine & Son Ltd. This firm also has in hand for the coming season fruit processing machinery on account of the Rosella Preserving and Manufacturing Co. Ltd., Kyabram Co-operative Fruit Preserving Co. Ltd., and the Shepparton Fruit Preserving Co. Ltd.

This firm sets a very high standard on its workmanship, and has, by merit alone, gained the confidence and custom of the canned goods factories throughout Australasia.

Their Victorian agents are Messrs. McPherson's Pty. Ltd., of Collins-street, Melbourne, who will be glad to take up all enquiries for any of the firm's "standard" lines or special work.

# DUSTING

*A new method of application of Insecticides and Fungicides.*

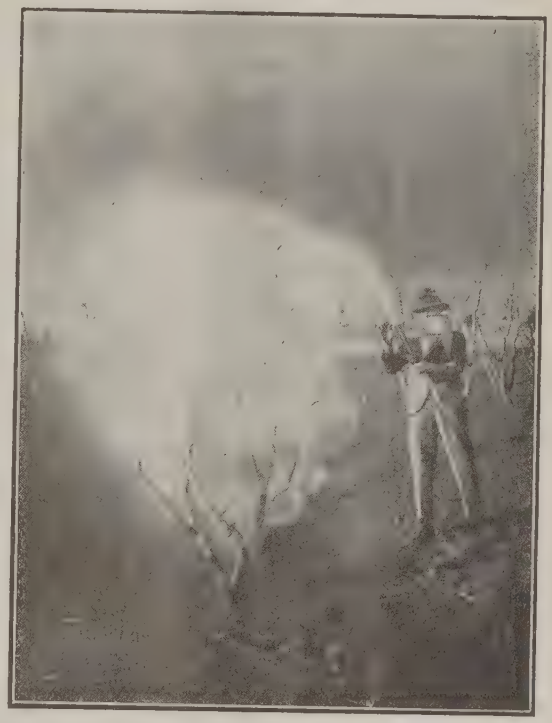
## EFFICIENT and ECONOMICAL

*Dusting Machines for every type of work, consisting of:—*

Horse Drawn Traction Type. (See photo).

Power Type, designed for large Acreage. Can be supplied with Engine or Blower and Container separate, for mounting on ordinary Spraying Machines in place of a pump.

For smaller Acreages a Duster Gun similar to the one shown can be supplied. It is suspended by broad straps from the shoulders. Weight about 12 lbs.: capacity for Dust material, about 8 lbs.



**Hand Duster Gun Type.**

## DUSTING MATERIALS

The efficiency of these products is in exact proportion to their fineness.

An up-to-date Plant has been installed for reducing these particles to the finest point, that is, 200 mesh, much of it going through 300.

Finely divided sublimed Sulphur is the Fungicide used in combination with Insecticides. Special mixture for Vine Growers consists of Bordeaux and Sublimed Sulphur. This will protect the Vine from Oidium, Downy Mildew, and Black Spot.

For Codlin Moth and Fusicladium of the Apple and Pear, Sulphur combined with Dry Arsenate of Lead is recommended.



**Traction Type for Vines and Row Crops.**

**Bordeaux Dust Mixture** is designed for dormant Dusting and diseases which are not susceptible to Sulphur.

All Materials supplied ready mixed in convenient packages, also all types of Plants for their application.

For further particulars apply to

**GIBBS BRIGHT & CO.,**

**Grenfell St.,**

*ADELAIDE, S.A.*

# Fruit Canning Equipment.

## Pitter for Stone Fruits.

### Australian Invention.

**Cannery operations demand the best possible machinery and equipment.**

**The Australian-made "Hulandy" pitter has proved its merit for stone-fruit handling.**

**Interesting details are included in the following notes.**

LAST season the Shepparton Cannery turned out a can of fruit for every person in Australia. They are but one of several canneries with big productions, and although the home consumption of canned fruit is increasing very rapidly (as it should, unless one prefers high blood pressure, kidney troubles, and, maybe, cancer) our generous climatic conditions ensure such quantities of fresh fruit right round the calendar, that out-of-season buying of canned fruit will always be restricted thereby. Overseas markets are a necessity.

The very keen competition that Australia has from America will always be a big factor to contend against. Careful administration and adoption of the latest practice are vital if our fruits are to sell abroad, for apart from our geographical handicap of distance from markets with the tropics to be crossed, we have no cheap labour or cheap shipping at hand. However, our fruit is all right, and that is a good starting point—the best starting point.

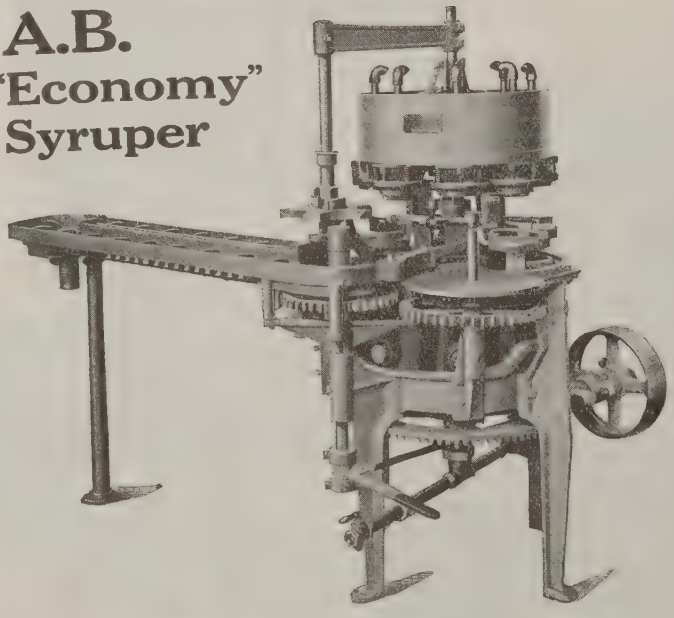
It is our methods that demand attention, and though the canning industry has had a strenuous time since the War, it is now finding its feet again, and showing evidence of vast improvement that is an earnest for the future. An example is the sending over of one of its officers to investigate latest practice in America, as has just been done by the enterprising company mentioned above.

With progressive steps such as this, coupled with the use of latest and best machinery, continuation of the successful year just ended is assured. Opposite to the position that obtains when only a local market is concerned, an industry to meet world competition must be unhampered in its choice of the best equipment, wherever it may come from.

However, it must not be assumed that America alone produces the best in canning machinery, an instance being the "Hulandy" Pitting Machine. This fine machine, a development of the earlier "Robbins" Pitter, also invented by a Melbourne man, is the production of two young Goulburn Valley engineers. It displaces labour, and promises to cheapen the 1925-26 pack of clingstone Peaches in this country, as it is now well beyond the experimental stage.

Through economising in labour and freeing it for service in other directions, the "Hulandy" Pitter pays for itself, and begins to show a profit to its user over and beyond its full cost inside a month from commencement. Those who saw it in operation last March and April expect almost universal adoption for stone fruit handling. Distribution is in the hands of Messrs. Tombs and Howcroft Pty. Ltd., of Melbourne, who are now preparing for a busy season in the canning industry, and offer service in connection with both can-making and processing equipment, and related lines.


**A.B. "Economy" Syruper**



**This Machine . . Justifies its Name**

**Insofar as it affects many savings, e.g.—**

BRUISED FRUIT.—A rubber displacement ring absolutely prevents injury whilst syruping; an inverted cup shape valve also assisting in permitting the fruit to stay in a heaped up position above the top of the can—two very important and exclusive features of this Syruper.

DAMAGED CANS.—A heavy star turret rounds out slightly flattened cans that might otherwise jam and be spoiled.

SYRUP.—An exclusive feature is the method of filling around the circumference of the valve with the air vent cutting off at the same time as the syrup flow, preventing flow back from the vent pipe. This feature, together with the rubber displacement ring permits the minimum use of syrup without injuring the fruit.

There are a number of these ANDERSON-BARNGROVER SYRUPERS in Australian Canneries, mostly fitted with Can Drainers and Rotary Disc Feed.

**TOMBS & HOWCROFT Pty. Ltd.,** 369 Post Office Place MELBOURNE

## A NEW POWER SPRAYER.

Of considerable interest to orchardists throughout Australia is the introduction by the International Harvester Company of a new, enclosed, self-oiling power sprayer.

This outfit, which is mounted on a sturdy, well constructed truck, is so designed that the centre of gravity is exceedingly low, making it eminently suitable for hilly districts. The power is supplied by a McCormick-Deering engine, of which either the 1½ H.P. or the 3 H.P. are available for this work. The belt connecting the engine to the pump is protected from moisture by a galvanised hood, while the vat, which has a capacity of 75 gallons, is fitted with an efficient agitator, which makes certain the thorough mixing of the spraying ingredients.

The pump is of entirely new design in that the moving parts run in oil, and are completely enclosed against dust and grit. It contains several other practical features, which should be appreciated by those engaged in fruit growing.

The whole outfit has a neat, compact appearance, and is thoroughly practical in design. It is on view at the Royal Show at Melbourne, and is well worth the attention of those engaged in the fruitgrowing industry.


**Latham Dehydrators**

"STAND ALONE"

The "Rolls Royce" of the Artificial Drying World.

Some Installations for Foodstuffs.

| Purchaser | Principal Prods. |
|---|---|
| Merbein Dehydration Trust, Mildura | Sultanas Raisins etc. |
| Tasmanian Dehydration Pty. Ltd. Bridgewater two plants. | Apricots Prunes Apples |
| Charles Martin, Yackandandah | Prunes |
| Swallow & Ariell Ltd. Port Melbourne. | Carrots Turnips Cabbages, etc. |
| Woorinen Co-op. ack. Shed, Woorinen | Sultanas Raisins etc. |
| Aurora Pack. Co. Pty. Ltd., Irymple. | Sultanas Raisins etc. |

**D. J. LATHAM**

**157 Queen Street,**

Melbourne, Australia.


## MELBOURNE ROYAL SHOW.

**September 17th to 26th.**

It is anticipated that more than 180 cases of fruit will be staged at the Melbourne Royal Agricultural Society's Show from September 17th to 27th. The sum of 25 guineas has been donated by the fruit exporters' handling committee to provide a shield for competition amongst school children attending packing classes conducted by the Department of Agriculture, in conjunction with the Education Department. Two cases of Apples will be packed by each competitor in the presence of an officer of the Department of Agriculture, and these exhibits will be displayed in the schools' competition exhibits forwarded from various districts.

Referring to the exhibit recently, Mr. J. M. Ward (Supt. of Horticulture) said that from the number of entries already received, the success of the competition was assured. The winning school will hold the shield for the ensuing 12 months.

Fruit of various descriptions will form the central attraction of the building of the Department of Agriculture. The exhibit will include many new features, which officers are now busily engaged in constructing. It is understood that a complete packing-shed equipment, illustrating the most approved arrangement and mechanical devices used in the preparation of fruit for market, will be conducted according to scale.

In addition to the above exhibits, a considerably more extensive display of fruit than has been previously staged at the Royal Show, will also be exhibited.

The Royal Show will have its usual bright features of machinery and other exhibits. Its educational value is very great. The administrative work is most capably carried out under the leadership of the Secretary, Mr. Henry Schwieger.


## IS IT A STOMACH COUGH?

If your cough is a chest cough, this does not interest you. But if it is due to stomach disorder, and is accompanied by a furred tongue, phlegm in the throat, and a general feeling of "gone-ness," it is time you took a dose of A.M.S. This herbal extract is a wonder worker, and a positive cure for Indigestion and Liver troubles. A few drops after every meal is keeping thousands in perfect health, and buoyant spirits. A.M.S. costs 3/- the bottle, by Post 3/6, and can be procured from all chemists or country stores, or direct from T. A. Dickson, Chemist, Geelong, Victoria.


### Orchard Requisites.

Attention is called to the advertisement in this issue of the "Croft" Paper Holder. This is an ingenious appliance invented by Mr. Arthur Croft, engineer of the Harcourt Cool Stores, where it soon became popular amongst the growers. By means of the coil spring the point of the holder is kept in contact with the paper, and securely holds it until each sheet is removed. Mr. F. R. Mellor, of 440 Elizabeth-street, Melbourne, has undertaken the distribution of this paper holder, and will be pleased to receive applications for agencies in all States.

Mr. Mellor also notifies a reduction in the price of the "Myer's" Spray Gun to 42/6 (postage 1/3). Special notice is drawn to the "Amazon" British-made High Pressure Spray Hose, which is the outcome of scientific investigation, to ascertain the material that will give the best service in spraying the various oils and chemical compounds used by the orchardist.

The "Carlton" Arsenate of Lead, manufactured by Messrs. Walter Voss & Co. Ltd., of London, complies with the new regulations regarding British preference, the lead used in its manufacture being chiefly Australian. It might be remarked that Great Britain has recently given a very valuable preference to our dried fruits, and measures are being taken to encourage the greater consumption of other Empire products. Already the United Kingdom takes about 50 per cent. of the whole of the exports from Australia, states Mr. Mellor, and it is to our mutual advantage to purchase British articles, as the more we purchase the more we can sell. The British buyer of Apples has been the greatest factor in making the high prices realised for Australian Apples this year. A huge quantity was purchased here at good prices; the Apples sent by the grower on his own account realised excellent figures; and the Australian market was cleared to such an extent that the local prices now are very high, to the fruitgrowers' great advantage.

Messrs. Voss report that Mr. S. W. Mount, a very old user of the "Carlton" in England, gained the following prizes at the Imperial Fruit Show —The Gold Cup, five Challenge Cups, two Challenge Bowls, two Special Pieces of Plate, eight Gold Medals, and twelve First Prizes. Mr. Mount and his brothers ordered eight tons of the "Carlton" for use during the following season.

Mr. Mellor will be pleased to supply further information to all interested.

# South Australia.

Orchard Registration.

Association Meeting ∴ Murray Settlements.

**Fruitgrowers' and Market Gardeners' Association.**

**Executive Meeting.**

A MEETING of the Executive of the S. Australian Fruitgrowers and Market Gardeners' Association was held on July 31st. The President, Mr. J. B. Randell, occupied the chair.

**Orchard Registration.**

The committee appointed to draft the proposed Orchard registration Fee Bill, submitted the main clauses which were approved of, and a small committee appointed to approach the Premier with a view of bringing in a bill to that effect. The following are the main clauses:—

Clause 1.—Objects,—To provide funds for the following purposes.

(a).—For organising the fruit and vegetable industry.

(b).—For advertising purposes.

(c).—To open up new markets.

(d).—To deal with surplus supplies.

Clause 2.—That the funds be controlled by a Board. And that the present Board of the S.A. Fruitgrowers' Fruit Pool Society Ltd. be empowered to have control of the funds, until the new Board be appointed under this Act.

Clause 3.—That the Board appointed under this Act consist of seven members, to be elected under the preferential voting system.

Three members of the Board shall retire in the first year, and four members shall retire in the second year, but shall be eligible for re-election; those longest in office shall retire, but in case of equality in length of service, the three members to retire will be decided by lot. The Secretary shall be appointed annually.

Each section of the industry shall appoint one representative on the Board. Growers may register under the section of greater interest to them, and shall only be entitled to one vote for a candidate representing such section.

Clause 4.—That the fruit and vegetable industry be divided into sections as follows:—1, Soft Fruits. 2, Hard Fruits. 3, Dried Fruits. 4, Citrus Fruits. 5, Table Grapes. 6, Tomatoes. 7, Vegetables and Potatoes.

Clause 5.—That the rate of Registration Fee be one shilling per acre, with a minimum of ten shillings for ten acres or under, on orchards bearing fruits for commercial purposes, subject to the following exemptions.—1,—That commercial orchards of under one acre be exempt except where used for intense culture under glass. 2,—That acreage of bearing trees under seven years old be exempt. 3,—That vines under four years old be exempt. 4,—That berry fruits under two years old be exempt.

**Citrus Growers.**

At the instance of the Citrus Growers a committee was appointed to wait on the Chief Commissioner of Railways with a request that he instal the **Sun-kist fruit juice extractors** at certain railway refreshment rooms. (The control of these refreshment rooms is being taken over by the Railways Department). It was considered that the success of the sys-


Concentrated Tobacco Extract——

is recognised by scientists and practical growers to be the best and most economical specific against APHIS and many other kinds of Fruit and Vegetation Pests.

The Most Reliable Tobacco Spray is —

"INSECTO"

SULPHATE OF NICOTINE

*Highly Concentrated.*

*Wonderfully Effective.*

Manufactured in Australia for Australian conditions by the makers of the well known "Harbas" Red Spraying Oil, "Harola" Lime Sulphur, "National" Bordeaux Powder, etc., etc.

A Trial will convince you.

We state definitely there is no need to use an imported product. INSECTO HAS QUALITY Right and PRICE Right and is Australian Made.

*FULL PARTICULARS FROM*

ESMOND RUSSELL, 60 Queen Street, Melbourne

tem at certain Victorian railway stations warranted the introduction of the system in South Australia.

It was reported that the Citrus Growers' section had come to an arrangement with the wholesale fruit merchants in respect to

**regulating prices**

of Oranges on the Adelaide market. Each party appointed five delegates to confer when any alterations in prices were required. When a rise in price was wanted by the growers, it would be encumbent on the growers' committee to call a meeting of the committee, and when the merchants wanted to drop prices, it would be encumbent on their committee to call the conference.

The prices decided upon are to be the minimum ruling prices for good fruit of standard quality, in cases which comply with the bushel case measurements.

For some years this system of making market prices for Cabbages and bunch vegetables, proved very satisfactory to both buyers and growers, and it was considered the new arrangement in respect to citrus fruits would be most beneficial to growers and the trade generally.

**Complaint Against Railways.**

A complaint was received from one of the wholesale fruit merchants in respect to the inconvenience he was put to when making a small shipment of fruit for export to England.

It is the policy of the Railways Department not to allow any trollies to cross the railway line at the Outer Harbor with goods for shipment. The firm in question received an order for 50 cases of Oranges just a few days before the date of the sailing of the boat, and, knowing that it was impossible to rail the fruit from the Adelaide Station in time to catch the boat, the fruit was conveyed to the Outer Harbor by motor lorry, and extra hands were sent to assist in the unloading.

The station-master refused the lorry permission to cross the line, and also prevented the fruit from being carried across on the shoulders of the men who went to assist in the unloading. An appeal was then made to the Chief Commissioner, who upheld the action of the station-master. It was then necessary to engage a truck and have the fruit put into it and shunted on to the wharf in the usual way, and charged for accordingly.

The executive decided to support the fruit merchants in a deputation to the Commissioner with a view of getting an exemption in respect to the loading of fruits at Outer Harbor.

## MURRAY RIVER SETTLEMENTS.

### Alleged Huge Losses.

### Questions in South Australian Parliament.

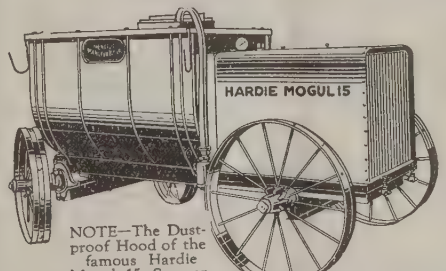
Statements were recently made in the South Australian Parliament that there have been huge losses on the River Murray Settlements, a Royal Commission is now taking evidence. Mr. Collins, M.L.A., gave notice that on September 2 he would move:—

"That the Irrigation Royal Commission should be requested to include in their report.—1. Whether sufficient inspection of land was made by departmental officers prior to construction works being carried out; 2. The name of the Ministerial head signing contracts; 3. The names of Government officers who were in any way responsible for the huge losses on River Murray settlements."

**Bee-keeping at Berri.**—Early in July settlers in Berri, South Australia, met together and formed a Bee-keepers' Association with the result that it was discovered there were quite a number of bee-keepers in that district. Members of the Association will no doubt benefit considerably by the discussions which take place at the monthly meetings, and they are to be congratulated on their enterprise.


# ONLY THE HARDIE

## Has these Important Features




NOTE—The Dust-proof Hood of the famous Hardie Mogul 15 Sprayer adds years to the sprayer life. Beneath this hood is the greatest power plant ever put into a sprayer. Send NOW for our latest catalog Learn about the many improvements and splendid all-round construction of the world's best—

**DEPENDABLE HARDIE SPRAYERS**

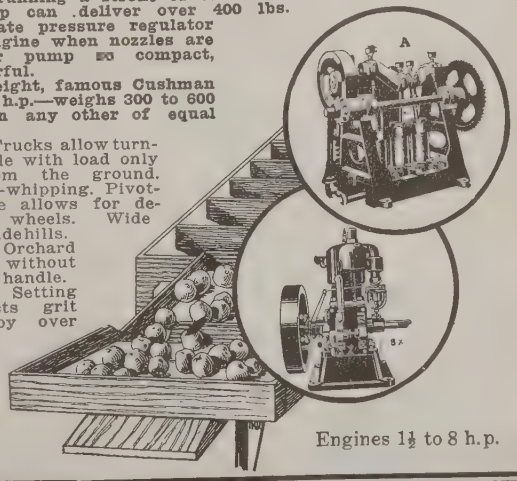
**(A) Pump Eliminating 90 Per Cent. Wear: Plungers have two soft packings to guide them; all wear comes on these; replaceable in two minutes. No crosshead or guide. Porcelain-lined cylinders. Bronze bearings. Extra heavy crank shafts. Machine-cut gears. Friction so light, pump can be turned by hand and keeps running a stroke or two after release; yet pump can deliver over 400 lbs. pressure. Accurate pressure regulator takes load off engine when nozzles are closed. No other pump so compact, durable or powerful.**

**(B) Light Weight, famous Cushman Engine 1½ to 8 h.p.—weighs 300 to 600 lbs. less than any other of equal power.**

(C) Auto-Plex Trucks allow turning in 20-ft. circle with load only 12 inches from the ground. Eliminates pole-whipping. Pivoted front axle allows for depressions. Large wheels. Wide track—safe on side hills.

(D) Hardie Orchard Gun stays set without holding control handle.

(E) Suction Setting Chamber collects grit not excluded by over head suction.




Engines 1½ to 8 h.p.

Orders indented direct from America saves the Orchardist the upkeep of the City Houses.

Write now for Catalogue to **L. E. QUARMBY**

**Economic Stores - BATLOW, N.S.W.**

# Experiments in Tile Draining.

## Valuable Tests at the Commonwealth Citrus Research Station, Griffith, N.S.W.

"Efficiency of Tile Drainage Established Beyond Doubt."

GREAT INTEREST is being shown in the experimental tile drainage system recently installed at the Commonwealth Citrus Research Station, Griffith, Murrumbidgee Irrigation Areas, N.S.W., for although this is the first tile drain system constructed on this Irrigation Area, it is realised locally that, in the near future, tile draining will be resorted to rather extensively. The results obtained here, because of their value in planning the systems, will be closely watched.

One of the practical difficulties encountered by some orchardists is the proper management of soils that are prone to water-logging. There are retentive soils that only permit slow percolation of rain or irrigation water, and soils underlain by a hard pan. In the latter type of soil, water percolates very freely to the hard pan, where it accumulates with disastrous results to the trees.

The dangers of

**poor soil drainage,**

especially in orchards, are well known. During the very wet winter of 1923 several orchards on the Areas suffered from this cause. The roots of deciduous trees are killed out with the wet. In the spring the buds burst normally, and begin to grow, but the trees die when the young shoots are a few inches long. Citrus trees suffer in the same way.

We are, at present, experiencing a wet winter, and many growers situated on poorly drained land are, in consequence, becoming apprehensive. This, perhaps, explains the considerable interest at present being shown in this experimental installation throughout the Commonwealth.

At the Commonwealth Citrus Research Station a low-lying area of five acres, consisting of heavy loam soil, is drained. Before the tiles were laid, the surface run off used to drain towards this land, resulting in considerable water-logging during wet weather. From the point of view of irrigation, this was considered by many to be a very poor proposition, and is, therefore, an ideal site for the laying of tile drains for experimental and demonstration purposes.

The tiles are laid for the most part four feet deep and one chain apart. One drain is three feet deep for comparison, and it is proposed to lay an additional drain two feet deep. The tiles used in drainage are cylindrical, unglased earthenware pipes, one foot long.

In laying, a trench of the required depth and grade is dug, and the tiles are placed end to end in the bottom. The trench is then filled in. The cracks left between the tiles are not sealed in any way, and it is through these cracks that the surplus water finds its way into the drains. At the Commonwealth Citrus Research Station, tiles four inches in diameter have been used for the lateral drains, while the main drain is constructed of six inch tiles. Each of

**the lateral drains**

flows into a concrete silt basin. The outlets from these silt basins are six inches below the inlet, so that the flow of water from each of the laterals can be observed and measured.

Already interesting results are to be observed. Water lies on the undrained land after heavy rains much longer than on the drained portion. It is also possible to walk upon and to cultivate the latter much sooner than the former. The land is to be planted with

**Washington Navel Oranges**

during the coming spring, and there is every reason to believe that the trees will grow successfully under the present conditions, whereas, previously, it would have been very difficult to establish a profitable orchard, citrus trees being the most intolerant of wet soils, and eminently suited for this experiment.

In order to study the movement of the water table, a series of test holes have been sunk across the field. To make these holes permanent, perforated down pipe has been let into them to their full depth. The height of the water in these holes indicates the height of the water table. By this means it has been observed that the water table falls most rapidly near the tiles. A week or so after a heavy rain the water table is at the depth of the tiles in their immediate vicinity, and rises gradually on either side, being highest midway between the drains.

Up to the present the drains have yielded, at their greatest flow, about 1,000 gallons of water per hour from the system, but it is anticipated that, as time goes on, this flow will increase owing to the formation of small drainage channels in the soil and sub-soil leading to the tile lines.

It is expected that this experimental tile drain will yield valuable data as to the best depth and spacing of drains, rate at which the water table is lowered, and amount of salts removed from the soil in solution, etc. Already the efficiency of tile drains on this class of soil is demonstrated beyond doubt.

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## NOTES ON SOME VARIETIES OF STRAWBERRIES.

The following notes on varieties of Strawberries which are popular in Victoria and South Australia and which have been tried in recent years in N.S.W., are supplied by Mr. L. Gallard, Orchard Inspector, Eastwood, N.S.W.

**Melba** is considered by several of our old growers to be almost, if not quite, identical with our Cresswell's Seedling. I remember taking an old Victorian grower (who then had some Melbas growing), to see our Creswell's. We compared the fruit, and he was of the opinion that they were identical, and neither I nor the local grower could observe any marked difference in the fruit or plants. We have another variety which was introduced from Victoria under the name of Doncaster, which is very much the same. Personally, I think they have all originated from Creswell's. A number of seedlings have been raised in this State from the Creswell, among which are Doctor, Moree, and Glenfield. The chief difference is that in nearly all cases the berries are more uniform, have a smoother surface, and if anything a rather brighter colour. The texture of the fruit may vary a little, but as far as I can see the difference is very slight, and it is questionable whether the outstanding characteristics are sufficient to justify their being made new varieties.

**Sunbeam** has been given a trial. It created a fair impression at the start, but did not last.

**Royal Sovereign** with us bears a few very fine berries and a lot of small ones, and does not yield satisfactorily.

**Ettersburg 98** has been grown in North Ryde for the last two years with very good results. The fruit is very good, surpassing Creswell's both in size and flavour, but not coming near Creswell's in the second crop. It produces a good first crop, and the

We place your Fruit on the markets of BRITAIN direct.




FOR PROFITABLE RESULTS —

consign your fruit to

**The "White" Service**

**KEELING & HUNT Ltd.**
Monument Buildings,
**LONDON, E.C.3**
Cables, "Keeling, London"

**WHITE & SON LTD.**
**HULL**
Cables, "White's, Hull."

**ROGERS, WHITE & CO.**
**Victoria St., Liverpool**
Cables, "Rita, Liverpool."

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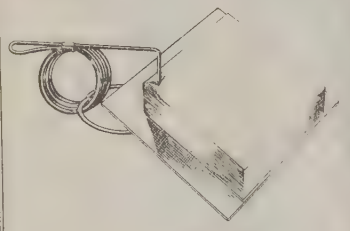
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This was recently invented by Mr. Arthur Croft, Engineer of the Harcourt Cool Stores. That it is a valuable aid to the fruit packer is proved by the large number of growers in the district who are now using it.

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Does the work of two men.

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Still the most popular.

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Worked like a bicycle pump.

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The most highly guaranteed paste.

"BLACK LEAF 40," 10 lb. tins, **£3/-**; 2 lb. tins, **16/6.**

Shall we send YOU illustrated Catalogue of Hand or Power Spray Pumps, Orchard Implements, Fruit Bottling Outfits, or "Climax" Cream Separators? If so, please post name and address, stating item interested in.

# F. R. MELLOR

**440 ELIZABETH ST., MELBOURNE**


crop ripens much earlier than Creswell's, but like Malakoff it fails to develop its second crop satisfactorily. It is being sold locally as Port Macquarie. The extra price that it commands in the market is the only thing that enables it to compare with Creswell's from a commercial point of view.

Illawarra has not given satisfaction here.*

Where Creswell's is free from disease it more than holds its own with any of the above varieties, but unfortunately during the last few years it has been suffering from an unidentified disease which has been causing a great deal of anxiety. On account of this, growers have been trying to get another variety to take its place, but so far they have not been able to do so. In the writers opinion Ettersburg 98 has come nearest to it.

*The comment should be taken as referring only to the Epping, north Ryde, Eastwood and surrounding districts. In some parts of New South Wales, especially on the South Coast, Illawarra does very well.—W. J. Allen, N.S.W. Government Fruit Expert, in Agricultural Gazette.

---

A very seedy individual applied for a job to a fruitgrower, whom he assured most emphatically that he never got tired. Later on in the day, when the grower went to the orchard where he had put the man to work, he found him lolling on his back under a tree.

"What does this mean?" he asked. "I thought you said you were a man who never got tired?"

"I don't," was the calm reply. "This doesn't tire me."

## DUSTING.

### A New Method of Pest Control.

(Contributed.)

Scientific research has again come to the aid of the fruitgrower at a most opportune time. Up to the present spraying has been the general means of keeping in check the various insect and fungi attacking plant life.

Engineers, chemists, and practical growers assert that dusting is equal in efficiency and considerably more economical than spraying.

As an instance, it is claimed that a man and a boy with a single plant can effectively dust 5 acres of mature Apple trees in one hour. Carefully conducted experiments in America confirm the statements of many of the larger growers of that country.

A pamphlet published in New York States:—"At least the question of relative efficiency of dusting compared with spraying has been settled." In 1920, the writer of the pamphlet presented before the New York State Horticultural Society, a summary of experimental results obtained in Michigan, Nova Scotia, and Illinois, the evidence being quite as conclusive as that of New York. Massachusetts reports in 1922 equally satisfactory results with dust on "MacIntosh" and other varieties.

For fighting the Codlin Moth, six and seven sprayings in one season are sometimes necessary. Very often this work has to be performed at a time when the grower can ill afford it, and to save time he often takes


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the risk of mixing spraying materials together, but in their dry form this risk is eliminated. For instance, the material recommended for Codlin Moth consists of flowers of sulphur and dry arsenate of lead. This will simultaneously protect from the moth and fusicladium. For oidium on vines, flowers of sulphur has to be regularly used. Downy mildew is making its unwelcome appearance. This has meant the purchase of a dusting appliance and spraying outfit, but in the new method of dusting, all the grower has to do is to mix dry Bordeaux with his flowers of sulphur, and protect his vines from downy mildew, black spot and oidium at the same time, thus saving much labor and the purchase of a spraying plant.

A specially designed tractor type of duster for vine dusting is now on the market, and the writer witnessed 12 acres of vines effectively dusted in three hours by Mr. Oliver, McLaren Vale, S.A. The dusters are being designed for every type of work. It is not necessary to purchase a complete new outfit for dusting, but simply to remove the pump, using the same engine for driving the blower. The tank need not be removed, as it can be used for conveying surplus powder to other parts of the orchard. The same type of duster can be attached to the "Fordson" or any other tractor, and driven from it. In addition, a small hand plant will be available, which will consist of a geared fan with a container holding 7 to 8 lbs. of powder, strapped on and held in position in front of the body.

Will the dust be adhesive? This depends on the fineness of the materials used. All dusting products should be reduced so that the particles pass through a screen having 200 meshes per lineal inch, 40,000 per square inch. This extreme fineness will insure not only a perfect distribution of the powder, but will be very adhesive.

Chemical analyses have shown more active ingredients remaining on Apples from sulphur and arsenate of lead dust than from liquid spraying.

Is there much waste? The dust has a distinct advantage in this respect, as being so light, it floats to other parts of the orchard, and very little of it is lost. Dusting may be done in a light breeze, but the best time would be in the early morning or evening, when there is little or no wind.

Is it cleaner? As far as is known, no harmful effects have been recorded from breathing the dust, as it is left behind the operator.

Dusted fruit is reported to have a higher colour and smoother finish, and the leaves are a richer green than those sprayed, as dusting does not burn like liquid sprays, and it is therefore much safer to use on tender plants.

There is no water to pump and haul, and chemicals are not affected by the use of unsuitable water. It can be used in wet or rough ground, or on sides of hills impossible to a sprayer. Another important point is the effectiveness of dusting, due largely to the rapidity of the operation, and providing quick and thorough protection to large acreages in critical periods of disease, which is frequently impossible to give with liquid spraying.


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# Special Notice to Fruitgrowers

In response to numerous requests from growers for information as to who are members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA, the following list is given. All are members of the above Association, and are registered firms:—

**H. M. Wade & Co.**, 471 Flinders Lane, Melb.
**T. Stott & Sons**, 11 Western Market, Melb.
**F. Booth & Sons**, 15 Western Market, Melb.
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**A. E. Pitt**, 12 Western Market, Melbourne.
**J. Davis**, 13 Western Market, Melbourne.
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**W. S. Tong**, 4 Western Market, Melbourne.
**Silk Bros.**, 441 Flinders Lane, Melbourne.
**J. G. Mumford**, 449 Flinders Lane, Melb.
**J. W. Ross**, 6 Western Market, Melbourne.
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**W. A. Watkins**, 62 King Street, Melbourne.
**P. A. Patrikeos**, 31 William Street, Melb.

The whole of the QUEENSLAND FRUITS sold in Victoria, is handled by members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA, under appointment by the Committee of Direction of Fruit Marketing, Brisbane, Queensland.

GROWERS PROTECT YOURSELVES by consigning to members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA.

Correspondence is invited by the Association.

J. D. FRASER, Secretary, 325 Collins Street, Melbourne.

## Insect Pest Control.

### Codlin Moth.

Towards the end of this month it is advisable to place hessian bands on fruit trees, principally Apples and Pears, to trap the caterpillars when ascending the trees to pupate or to turn into the chrysalid stage. These bands should be removed every few weeks, when codlin moth caterpillars are noticed, and dipped into boiling water and then replaced on trees. If this is carried out carefully, the caterpillars and chrysalids will be destroyed.

Spraying for these insects should be attended to as soon as the petals commence to fall.

### Scale Insects.

Oleander Scale, Brown Scale and Olive or Black Scales are now hatching in citrus and other orchards. The trees should be thoroughly sprayed with tobacco water or red oil. Fumigation is highly recommended as one of the best means of ridding an orchard of these destructive scales.

### Fruit Trees.

All loose bark should be scraped off at once. This will destroy all larvae and pupae of many destructive insects, including Codlin Moth and Light Brown Apple Moth. All Lichens should be destroyed by spraying with Lime-Sulphur, as these places are breeding grounds for many kinds of orchard pests.

### Woolly Aphis.

#### The Aphelinus Parasite.

These parasites, states Mr. C. French, Victorian Government Entomologist, have done remarkably good work in destroying Woolly Aphids in many parts of the State where the parasites have been liberated. Supplies of these insects will be ready for distribution in a couple of weeks' time. Application for same should be made to the Science Branch, Department of Agriculture, Flinders-street, Melbourne. It is the intention of the Science Branch to carry out experiments with the Aphelinus against Peach, Cherry and other Aphids this season.

### The Cherry Aphis.

These insects have caused the death of many Cherry trees in orchards in Victoria and N.S.W. At the present time the aphids are hatching out so it is advisable to spray the trees, before the buds burst, with red oil at a strength of 1 in 20 to destroy the eggs.

Special attention should be paid to giving the spurs a thorough wetting. If the aphids are moving, a spraying before the leaves curl up will be worth two or three later. Nicotine Sulphate or Black Leaf 40 at a strength of 1 pint in 80 gallons, with 3 lbs. of soap, should be used.

### Peach Aphids.

These insects will soon be making their appearance. Spray at once with remedies same as for Cherry Aphis.

### Root Borer.

These most destructive insects will soon be found on Apple trees, especially young trees. When noticed, spray at once with Arsenate of Lead, 1 in 20. Spread sheet or old blanket under trees, tap them sharply and every borer will drop off the trees. Pick up and destroy beetles. Keep all trees free from weeds. Bands and traps should be fixed on trees as soon as possible.

### SPRAY SPREADERS.

#### Commended in Tasmania.

The use of Calcium Caseinate in conjunction with spray mixtures is cordially commended by Mr. P. H. Thomas, Government Fruit Expert, Tasmania.

Used with Arsenate of Lead and other sprays, the spreading power of the mixture is increased: there is extra adhesiveness; this is of great value with all sprays, particularly Bordeaux Mixtures and other fungicides: russeting of fruit is reduced.

To summarise, it may safely be said that by using caseinate spreaders under ordinary conditions, the general efficiency of the spray is increased, especially in the case of arsenical and nicotine applications. From the various tests which have been conducted, there is no record of any injury to trees from chemical changes occurring to the mixtures to which the spreader is included.

The advent of an efficient spreader has been long looked for amongst orchardists, as it has always been realised that many of our sprays were lacking in the essentials of adhesiveness and covering power. The orchardist is advised to make a trial of such caseinate spreaders as are available in conjunction with the various sprays. The results should give greater economy in spraying operations, and more effectual control of pests.

Pakenham, Vic.,
20.6.25.

I enclose my cheque for 8/6, being one year's subscription to your valuable journal.—G.L.A.

An optimist is a man who thinks the world is improving and tries to help the good work along.

FRUIT TREES . .
Roses, Shade Trees, Shrubs

LASSCOCK'S FOR QUALITY

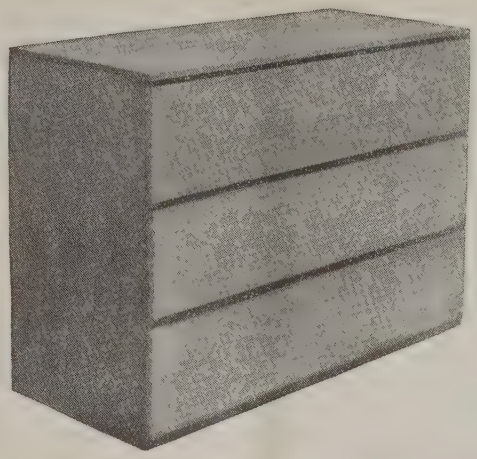
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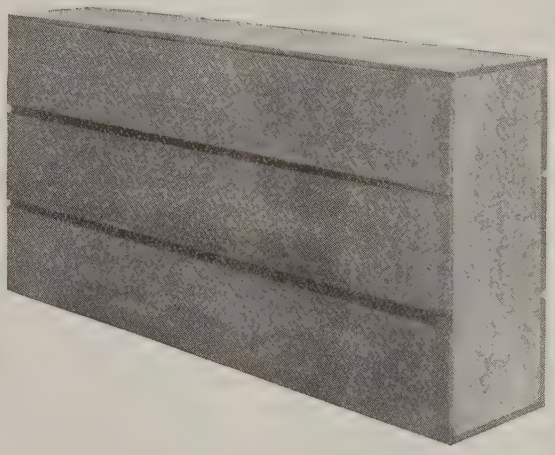
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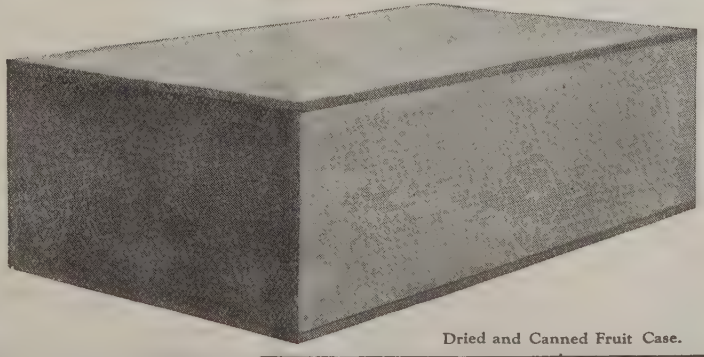
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## SPRAYING FRUIT TREES.

### Valuable Formulae.

In our April issue, Mr. W. S. Arnold, Manager of the Soldier Settlement at Kurrajong, N.S.W., detailed many important items re orchard practice, particularly spraying. Hereunder we publish the balance of the article, giving additional hints:—

**Bordeaux Mixture.**—Copper sulphate or bluestone, 6 lbs.; stone lime, 4 lb.; 50 gallons water. **Procedure.**—Measure 25 gallons water, suspend crushed bluestone in sack in water till dissolved, then slake lime in small quantities. Pour this milk of lime into the bluestone solution. To test if strength is O.K. dip a knife into solution. If a deposit of copper on knife, it is too strong for foliage, and will burn it, therefore add more milk of lime till no deposit of copper is formed upon knife.

The most effective insecticides are:

**Arsenate of Lead,** which is an internal poison for leaf-eating insects as Dicky Rice, Cross Bug, Spine Bug, etc. Arsenates have great killing properties. Arsenic compounds must be insoluble, since the presence of free soluble arsenicals scorch the foliage. For this reason, the extremely poisonous white arsenic cannot be used in spraying; but the insoluble arsenates of lead, zinc or lime can be safely used, as they have no detrimental effects on foliage.

**Red Oils or Miscible Oils,** such as Gargoyle, Neptune, Harbas, Rhino, are external contact insecticides, and cause death by their penetrating and irritant qualities, and are used against scale insects and plant lice. These oils have grown rapidly into favour of late, being cheap, easily emulsified, easily applied, and are most effective, if conditions are right and work thoroughly done. They can be applied with safety roughly from November to May if trees are growing strongly.

The three first-mentioned oils were used on Kurrajong settlement areas with variable results this year. Complaints were made that oils were not up to standard. This could not well happen, as all these oils are blended under Customs supervision, and before any oil is removed from vat, samples are taken to the Government Analyst, and not till his report is received can any oil be put into tins or casks. During the analysis the blending room is locked and sealed.

The advantage of these prepared Red Oils is that they are of uniform strength, and being oils, will remain on tree, and not be washed off by first shower. The oil mixes freely with cold water.

Directions for mixing Red Oils are as follows:—

One gall. oil, 2 or more packets of soap extract (Hudson's), 40 galls. water.

**Procedure.**—Stir soap extract into 1 gall. of water till thoroughly dissolved, then add 1 gall. of oil to same; agitate till result is like cream, with no free oil on top. Pour this heavy emulsion into cask. Now add 40 galls. of rain water to above mixture. If hard water has to be used, add more soap powders or washing soda, until a perfect milky emulsion is obtained. The emulsion is right when it spreads over the surface of leaf and does not gather in globules. Keep emulsion well agitated and milk-white throughout whole operation. Good results were obtained this year against scale in areas outside the settlement by using the following formula:—1 quart kerosene, 35 galls. water, 7 lb. washing soda.

Kerosene is possibly the most valuable of all remedies, when properly emulsified and applied, and the most damaging of all when carelessly used. Kerosene will kill the eggs of scale without destroying the plant, so also at times will the Red Oil. I think Red Oils properly applied are the best, however, and are safest and simplest sprays for scale insects.

As an apprentice in the nursery, the only compound we used against scale insects, was **soda resin,** with excellent results. One can get this already prepared, and it is often preferred for the control of citrus scale pests. After being diluted with the quantity of boiling water, it is sprayed on warm, using it in January, February and March.

**To Prepare Home-made Soda Resin.**—Dissolve 3 lb. washing soda with 4 lb. finely powdered resin over a fire, in about 5 pints of water, then add to make 5 gallons; boil well until resin is thoroughly dissolved and the mixture of a dark brown colour; then take 1 gallon of this to make with 7 gallons of water the spray of right strength, and apply hot. We used it at 150 deg.

The kill is caused by suffocation, the resin glazing up all the breathing apparatus of insects.

There is a lot of bother in the preparation of mixture, and if not applied hot, often clogs in nozzles.

**Tobacco Wash: Spray for Aphis.**—Two lb. tobacco, 1 lb. soft soap, 6 galls. water. Steep tobacco in a bucket with about 2 galls. of water, and let it stand over-night; strain in morning, adding the soft soap, and the rest of the warm water, and spray warm.

**Sunlight Soap** is a simple remedy also for aphis and soft-bodied insects, and does no damage to foliage. One cake soap makes 2 galls. of spray—apply warm. It is the only spray that can be used with safety when trees are in bloom.

**Spraying Outfit.**—It is impossible to spray a 3 years old 10-acre orchard with one small outfit, as a bucket or knapsack spray pump. Although such are essential on all orchards, a hand power pump is necessary, and later on even motor power may be required. It has been estimated that a power sprayer, at its normal capacity, will do three times as much work as the best hand pump, and do it better and at about one-third the cost.

**Adequate Outfit.**—Heavy losses are often experienced through inability to get spraying done within a certain period, caused by breakdown of machine, bad weather, shortage of labor, and other causes. These losses often amount to a great deal more than the cost of an adequate outfit.

**Success in Spraying.**—Results from spraying are not always up to expectations, as we experienced at the settlement. Failures are caused, often by improper mixing of primary emulsion, and often because the emulsion has not been agitated, throughout the spraying, to keep mixture of same strength and consistency at last as at first. A good agitator is as important as a good pump.

Where spraying is not thorough, so that not all the insects are killed, the ones that escape are most apt to be the hardier, more resistant individuals (survival of the fittest) and naturally they transmit such qualities to the coming generation.

When mixing sprays, always use clean vessels, as by using dirty vessels, the chemicals in spray mixtures may be altered and success cannot be guaranteed. See to it that cask and hose are also thoroughly cleansed after spraying and prior to it. Always strain mixtures.

**Care of Outfit.**—Get your spraying equipment in good order several days before you begin spraying, and give machine a thorough trial to test hose, couplings, all valves, washers, nozzles, etc.

As most spray materials are very destructive to hose, it is always advisable to pump a few gallons of warm water, containing washing soda, through to clean out the hose, then place hose in lime water to preserve it till required again. Keep cask always full of water and machine under shelter.

It is business economy to always have everything in order and ready to commence operations at the right time.

### The Avocado Pear.

There is no reason why the Avocado should not grow well in North Auckland (stated Mr. G. A. Green, Secretary N.Z. Institute of Horticulture, when addressing a meeting of fruitgrowers at Whangarei, N.Z., recently). It is a delicious fruit, and being rich in fat and proteins, it is often used as a substitute for meat. Over 1,000 acres of Avocado are grown in California, and the growers reap handsome profits.

# SULPHATE OF AMMONIA

judiciously used on all farm and orchard soils, will influence higher yields of better quality produce. Its influence in the past has been to invariably place agricultural properties on a better paying basis.

— SULPHATE OF AMMONIA —
may be used "straight" as a top dressing or may be used in mixed fertilisers containing phosphoric and acid potash.

"THE RESULT TELLS WHY SULPHATE SELLS."

*Sulphate of Ammonia literature from—*
The Australian Gas Light Co., Haymarket, Sydney, N.S.W.; The Broken Hill Prop. Co. Ltd., Newcastle, N.S.W.; The North Shore Gas. Co. Ltd., 193 Alfred Street, North Sydney, N.S,W.; The Metropolitan Gas Co., 196 Flinders Street, Melbourne, Vic.; South Australian Gas Co, Waymouth Street, Adelaide, S.A.


## NEWS FROM ABROAD.

### Mr. W. H. Murray's Experiences.

### American Organisation Commended.

Mr. W. H. Murray, who is well-known to fruitgrowers of Australia and New Zealand through his connection with the Spraying Oil Department of the Vacuum Oil Co. Pty. Ltd., Melbourne, and who left a few months ago for a trip round the world, sends a most interesting letter to the "Fruit World." This was written from Hamburg, on 8th June, and is as follows:—

My Dear Mr. Boardman,—

We are now nearing the end of our Continental tour. The experience has indeed been unique. After a delightful trip across the Pacific, I arrived in San Francisco and started work.

Per automobile, I travelled from one end of California to the other, visiting all of the principal fruit-growing centres—Citrus, Prunes, Peach and Vine, and covering, in all, over 2,500 miles. At every centre I was treated right royally. The Chamber of Commerce, in quite a number of districts, rendered me great assistance in obtaining an intimate knowledge of all cultural methods pertaining in the various districts.

I was also given the opportunity of visiting the principal universities in the State, where they have horticultural research stations—including Riverside, Davis, Stanford, etc.

Among others interested in the marketing of the various fruit products, I had several interviews with Mr. Dezell, manager of the Citrus Growers' Association of California. The data obtained should prove of the greatest assistance to the fruit producers of Australia.

The trip across the American continent was interesting and very instructive. I had an opportunity of visiting the Grand Canyon, Kansas City, Chicago, Detroit, Buffalo, and Niagara Falls. I was taken over the principal meat-packing houses in Chicago, the Ford factories at Detroit, and a number of other industries, where the handling of men and highly developed systems to expedite affairs is brought to a fine art.

**These experiences force one to see the necessity for co-ordinated effort in organisation.**

The grandeur of the Niagara Falls compels one to relax from the mundane affairs of business. The sight is really beyond description. Huge blocks of ice which must weigh many tons, crash over the precipitous Falls and smash to atoms on the rocks below. Arriving in New York at night is somewhat of a strain on the new arrival. The thousands of cars on the streets, large double-decked omnibuses, the overhead electric railways, electric street cars, and the immense traffic from the tubes at every street corner, create a turmoil which has the tendency to give the brain a whirl.

After doing the sights of New York and environs, I left for England, and experienced a very boisterous trip across the Atlantic. I reached the hub of the universe, and had a delightful time visiting all the old historic places around London.

I have since had an opportunity of studying rural and city life in France, Italy, Switzerland and Germany. The experience in Paris, Rome, Florence, Venice, Milan, the lake districts of Como, Lugano, Lucern, will be life-long memories. The journey along the Rhine Valley, through Cologne and a number of other beautiful cities, was also most impressive. I am fortunate in having between four and five hundred photos. of all beauty spots visited, which, of course, will be available to my friends in Australia.

Will be returning to Australia via Canada, and intend to look into fruit problems in that Dominion.

With kindest regards,

Sincerely yours,

W. H. MURRAY.




## Poultry Notes.

(By A.E.)

**Hatching season in Full Swing.**

THE end of September will see hatching concluded. All through August and this month the chicks will be breaking their way into the world.

Here are a few reminders:—
If a chick can't peck its way out of the shell, it is a weakling.

Don't rear weaklings, they are unprofitable.

You are in the poultry business to make a profit, so "let only the fittest survive."

Weak chicks take more care, time, labor, and attention than strong chicks, and they cannot get their fair share of food, it's wasted.

The result is that even if a weak chick does survive the battles and buffetings coincident to this period, it will never be a success as a layer, though it may have come from a first-class laying strain, nor will it make a respectable table bird.

Remember that you must now make provision for future sturdiness in your stock.
It is a case of strong chicks make strong hens; strong hens lay strong eggs, and strong eggs produce strong chicks again.

Unless you want to permanently lower the standard of your flock, **weed out the weaklings.**

Broody hens make the best "brooders." Don't let your chicks catch cold.

Care taken in forming the nucleus of a poultry farm, will prove a great asset in future operations.

When chicks come out they require no food for the first forty-eight hours after hatching.

Try and so regulate your hatches that the first comes out in July and the last in September.

There are three main factors that influence the growth of chickens. They are inherited characteristics, environment, and food supply.

The greatest among these is food supply—chicks need vitamins just the same as a human being does.

Make grit and water always available in such a manner as to be quite safe for the youngest chicks.

All drinking vessels should be shallow and of such material or in such a situation as to be always fresh and cool. Take every care that your egg supply doesn't drown itself in infancy.

Feed chicks freely and often, green food, finely chopped, may be given them after the first few days. Later give it in a mash, but always avoid the rank stuff—the greens should be young, crisp and fresh.

Rolled oats should form the first meal. It is easily seen and easily digested.

A good chick food may be introduced after a few days.
In a month or so, whole wheat and rolled oats can be mixed in and gradually increased, while decreasing the chick food.

Too rapid a change of diet is liable to upset young pullets, and the simple expedient of allowing the two different feeds to overlap is satisfactory.

A mash may be fed to chicks in the morning with advantage. Always feed it from a flat clean piece of board or tin, dirt doesn't make it taste any nicer to the chickens, and it is liable to ferment if left amongst the grass or weeds.

Keep your chicks healthy—IT PAYS!

## Bee-keeping Notes

### HOW LONG DOES A BEE LIVE?

**An Important Question Answered.**

TO the commercial beekeeper this question would appear to be one of great importance. With a correct knowledge of the amount of work likely to be expected from his bees, they can then be caused to breed in accordance with the various influences governing the working-life of a bee.

Some of the greatest authorities have come to the conclusion that the life of a bee is governed not by days "but by the amount of work done."

Dzierzon, a high authority (in the English translation of "Rational Beekeeping") writes:—"The kind of flowers upon which the bees work, and the distance which they travel, make a difference."

Thus it will be seen that the term of life of a worker bee may vary considerably, but is in general governed by the amount of exertion endured —in other words, they work themselves to death.

Mr. Langstroth has written on this point, in agreement with several of the early German breeders of Italian bees, that "if an Italian queen be given, in the working season, to a hive of common bees, in about three months few of the latter will be found in the colony, and as the black queen removed left eggs in the cells, which take 21 days to hatch, it is evident that all the bees die from fatigue or accident in the remaining 70 days, making their average life 35 days in the working season."

It must be remembered that this test was made in "the working season," and would prove that a hard season of work has the effect of curtailing the life of the bee.

Every beekeeper is well aware that in the winter, when the hive is inactive, or again when the hive is queenless, bees live much longer because of the absence of work of a fatiguing nature, and the reduction of the exhausting process of brood rearing to a minimum.

### FOUL BROOD IN BEES.

**Sterilisation of Infected Combs.**

**H. Graham Smith, Apiarist, Hawkesbury Agricultural College, N.S.W.**

THERE is still very much doubt in the minds of professional apiarists as to whether combs infected with American foul brood



# Hatched .. in .. September

## Commenced Laying 4½ months later.

From chickenhood to laying time is a profitless, difficult and uncertain period for most poultry raisers.

Because he reduced this period to 4½ months—imagine it!—is the reason of the following enthusiastic testimonial. It just shows what a wonderful tonic Karswood Poultry Spice (which contains ground insects) is for conditioning and promotion of egg production. Below we give the testimonial in full.

### 270 Eggs — 10 Weeks — 8 Hens

"Having bought a 7 lb. tin of 'Karswood' Poultry spice from you to give it a fair trial, I am writing to tell you the results. I hatched out eight hens and a rooster at the end of the third week in September, 1921. I started mixing a little 'Karswood' with their food once a day when they were a month old, and have kept on according to the directions on the tin ever since. The eight hens started to lay at 4½ months old, and up to the present (10 weeks from starting) have laid 270 eggs. This I consider very good for the heat of the summer. I never had such good results before I used "Karswood." The birds look in the pink of condition, and I am very satisfied with the Spice."

(Name and address on application.)

### Nearly 23 Eggs per Month

12th November, 1924.

". . . Six Black Orpington pullets fed once daily on 'Karswood' Poultry Spice laid 396 eggs from 5th August to 31st October. The last month they laid 160 eggs. Fifteen pullets of the same breed from 1st August to 31st October laid 626 eggs, which had not 'Karswood' Spice. I am sure 'Karswood' is the best egg producer on the market, and will always recommend it.

"The figures equal 22¾ eggs per month with 'Karswood'; 13½ eggs per month without 'Karswood.' October the 'Karswood' birds increased their record to 26½ per bird."

(Sgd.) L. J. COLEMAN,
Don Road, Devonport West, Tasmania.

### 10 EGGS A DAY FROM 11 HENS

". . . I have been using 'Karswood' Poultry Spice for 6 months, and after a fortnight's use I have not been a single day without eggs. Previous to this, my birds, although well fed, simply would not lay more than an occasional egg. They are getting exactly the same quantity and manner of food now as previously, yet for the past six months I have 7—10 eggs per day from 11 hens, and this through the winter months. I think 'Karswood' is 'great,' and I now want to try 'Karswood' Pig Powders too, and watch results."

(Sgd.) MRS. V. SIMMONS,
Gippsland, Victoria.

### MAKE THIS TEST.

Go to your local Grocer, Storekeeper, or Produce Dealer. Get a 1/- packet of Karswood Poultry Spice, then give it to half a dozen of your birds in accordance with the directions on the packet. Do not expect immediate results—Karswood works naturally, not suddenly. It takes at least a fortnight or three weeks to produce results but they are good and sure.

### NOTE THE ECONOMY.

1/- packet supplies 20 hens for 16 days.
2/- packet supplies 20 hens for 32 days.
13/- (7lb. tin) supplies 140 hens for 32 days.

### SUPPLIES.

"Karswood" Poultry Spice is obtainable from all Stores and Poultry Food Suppliers at the following standardised prices:—

| | |
|---|---|
| ½ lb. packet | Price, 1/- |
| 1 lb. packet | Price, 2/- |
| 7 lb. tin | Price, 13/- |
| 14 lb. tin | Price, 25/- |
| 28 lb. tin | Price, 48/- |

*If your local dealer cannot supply you, write direct to Henry Berry & Co. Pty. Limited, 380 Collins St., Melbourne, adding postage---6d. on half-pound packets and 9d. on one-pound packets---to the above prices.*

(Bacillus larvae), can be effectively sterilised and made fit for use without a recurrence of the disease in the hive, and at a figure that will make the treatment of such combs a payable proposition. The discovery in 1922 of a method of treatment by Dr. Hutzelman, who used a 20 per cent. formalin-alcohol solution (the mixture now commercially known as Hutzelman's solution), was received by bee-keepers with much interest, but little hope was entertained that this method would ever be practicable, on account of the high cost of the solution and excessive evaporation that took place during the process of treatment.

It will be a matter of interest to bee-keepers to learn that a formalin solution with water as a dilutent has given results equally as effective as the Hutzelman patented solution. The following extract, which is taken from a report* by D. H. Jones, Professor of Bacteriology, Ontario Agricultural College, Canada, speaks for itself:—"The questions we wished to decide in the following experiments were, first, whether or not Hutzelman's claims could be substantiated, and secondly, whether or not the use of water as a dilutent could be substituted for alcohol with satisfactory results. Accordingly, combs were immersed for twenty-four and forty-eight hours respectively in various aqueous dilutions of formalin, alcohol dilutions of formalin, and Hutzelman's solution, after which cultures were made from the larval scales as above described.

"It will be seen from the table that in the case of uncapped cells, after twenty-four hours' immersion in all dilutions of formalin used, the spores of B. larvae were killed. In the case of the capped cells, however, a few of the spores were not killed in this length of time, either in the water dilutions or in the Hutzelman solution.

"After forty-eight hours' immersion, however, all spores were killed in capped cells as well as uncapped cells. Thus, in these experiments, the water dilutions of formalin proved to be as effective as the alcohol solutions in destroying the spores of B. larvae as they occur in the scales of infected brood combs."

| Disinfectant. | Combs immersed 24 hours. Cultures from Capped Cells. | | | Combs immersed 24 hours. Cultures from Uncapped Cells. | | | Combs immersed 48 hours. Cultures from Capped Cells. | | | Combs immersed 48 hours. Cultures from Uncapped Cells. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| Formalin 100 . . . . . | O | O | O | O | O | O | O | O | O | O | O | O |
| " 50, Water 50 | O | O | O | O | O | O | O | O | O | O | O | O |
| " 25, " 75 | O | O | O | O | O | O | O | O | O | O | O | O |
| " 20, " 80 | O | O | X | O | O | O | O | O | O | O | O | O |
| " 15, " 85 | O | O | X | O | O | O | O | O | O | O | O | O |
| " 10, " 90 | O | X | X | O | O | O | O | O | O | O | O | O |
| " 50, Alcohol 50 | O | O | O | O | O | O | O | O | O | O | O | O |
| " 20, " 80 | O | O | O | O | O | O | O | O | O | O | O | O |
| Hutzelman's Solution . . | O | O | X | O | O | O | O | O | O | O | O | O |

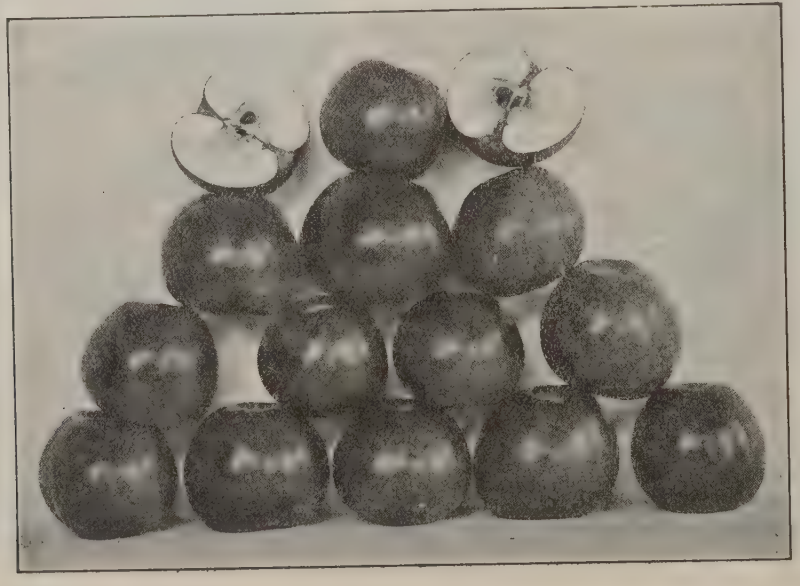
X Indicates growth of B. larvae. O Indicates no growth of B. larvae.

* "American Foul Brood of Bees"; Scientific Agriculture, Feb., 1925.

**Washing the Formalin from the Treated Combs.**

"On removing the combs from the formalin dilutions, strong odour of formalin persisted on the combs for days. As this odour is strongly objectionable to bees, attempts were made to get rid of it. The method that gave the best results was washing the combs under the water tap immediately on removal from the formalin. The combs should be held in a slanting position and passed backwards and forwards and from side to side under the free flowing tap. In this way all traces of the formalin can readily and easily be removed, after which the combs are stood up to dry."

Similar tests were also made with certain proprietary disinfectants in varying proportions, but in each case growth of B. larvae was obtained from combs immersed in solutions for

NEW LATE APPLE:

"Elsie Grant"

YATES-ROKEWOOD HYBRID

Better than either parent. Better size, better color, fine appearance, good quality, very solid; habit of Yates, but does not bunch; keeps longer out of cold store without wilting than any other Apple; very little aphis.

Every grower should test this promising variety. No trees for sale.

**Scions for grafting, 10/- per doz., 6/- per half doz., posted.**

T. H. GRANT

Beaconsfield, Victoria.

periods varying from forty-eight hours to eighteen days.

From the foregoing report, bee-keepers may reasonably hope that by wide-spread and consistent effort in districts badly infected with American foul brood, the enormous losses of those who are at present compelled to boil down their combs may be overcome.

## BEGINNING IN BEE CULTURE.

In starting bee-keeping a nucleus colony of well-bred bees is sometimes purchased from a queen-rearing apiary, and the intending bee-farmer sets out, at any rate, with such knowledge of bee management as will ensure a good start. Frequently, however, the move is less premeditated, being prompted by the capture of bees from a bee tree or of a stray swarm, and in this case their owner has to do the best he can in a business of which he knows practically nothing. It is for the guidance of such persons that the N.S.W. Department of Agriculture has published Farmers' Bulletin, No. 129, "The Beginner in Bee Culture," which is obtainable (from either the N.S.W. Government Printer or the Department), for 10d., post free.

The chief cause of failure is a wrong start. To be compelled to work some of these apiaries which have been built up on a wrong beginning would be sufficient to dishearten the most expert and enthusiastic apiarist. To lever the supers apart and get the frame out of the "any old hive" sometimes used requires scarcely less than a crowbar, and during such manipulation it is not surprising that the bees become decidedly angry.

The following common questions and their answers will doubtless be of interest to beginners:—

(Q.).—How often should I examine my hive?

(A.),—Once every seven or eight days during the active working season should be sufficient. Take notice during examination of the progress made in the hive, and provide accommodation for the next period. It should not be necessary to examine the colony during the winter months, or during cool weather.

(Q.).—How can I tell when my colony is in order?

(A.).—A colony may be considered in order if there is a fair quantity of stores available, the queen is laying well in season, and there are good combs in the brood chamber—good worker combs such as are built from

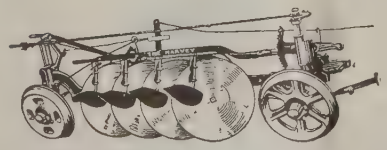
(Continued on Page xvia)


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WASTE TIME and NEEDLESS STOPS

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**Made in sizes from 2 to 7 Furrows.**



The Ideal Implement for Cane Field "Harvey" 4-Furrow Power Lift Tractor Plow (Model H.D 4.)



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TRACTOR
- PLOWS -
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Made in Sizes of 3-7 Furrows
& Fitted with 'D' Steel Shares



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ORCHARD, VINEYARD OR SMALL FARM

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# The Fruit Trade

*Market Reports and News Items.*

**REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS,**

**Advertising in this Journal.**

**NEW SOUTH WALES.**

**Sydney.**
Chilton, F., City Fruit Markets.
Greenberg, S. & M., Fruit Markets.
Louey Pang & Samuel Wong Ltd., Thomas St., Haymarket.
Rogers, F. H. G., Fruit Exchange.
Rule & Beavis, Fruit Exchange.

**VICTORIA.**

**Melbourne.**
Coastal Farmers' Co-op. Society, Western Market.
Cave, F., & Co., Melbourne.
Davis, J., Western Market.
Lister, G., Western Market.
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Pang & Co. Ltd., H. L., Little Bourke Street.
Silbert, Sharp & Davies, Western Markets.
Stott & Son, T., Western Markets.
Tim Young & Co., Western Market.
Vear, F. W., 49 William Street.
Wade & Co., H. M., 471 Flinders Lane.
Woolf, G., Western Market.

**QUEENSLAND.**

**Brisbane.**
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Collard & Mackay, Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Finlayson & Son, Fruit Exchange.
Geeves, H. V., Fruit Exchange.
Robsons Ltd., Fruit Exchange.
W. J. Whitten & Co., Fruit Exchange.

**TASMANIA.**

**Hobart.**
Jones & Co. Ltd., H., Fruit Exporters.
Peacock & Co., W. D., Fruit Exporters, and at London.

**Launceston.**
Bender & Co., 110 Elizabeth St.

**NEW ZEALAND.**

**Auckland.**
Radley & Co. Ltd., Fruit Auctioneers.
Turner & Growers Ltd., City Markets.

**Dunedin.**
Co-operative Fruitgrowers' of Otago Ltd.
Paterson, Thos., & Co., Vogel Street.
Reilly's Central Produce Mart.

**ENGLAND.**

**London.**
Da Costa, Gerald, Floral Hall, Covent Garden.
Jacobs, E., & Sons, Covent Garden
Joel, R., & Sons, 16, 17, 20 Russell St., Covent Garden.
Margetson & Co. Ltd., Covent Garden.
Monro, Geo., Ltd., Covent Garden.
Ridley, Houlding & Co., Covent Garden.
Swann & Co., 3 Salter's Hall Court.

**Coventry—**
Boswell Bros. and Davies.

**Hull.**
White & Son Ltd.

**Liverpool.**
Adam, James, Son & Co., 1 Temple Court.

**GERMANY.**

**Bremen.**
Fruchthandel, Gesellschaft, Reps. Renne, Harris Pty. Ltd., 434 Collins St., Melbourne.

**Hamburg.**
Astheimer, P. H., & Son., Fruchthof.
Lutten, J. H., & Co., Hamburg.
Stier, Aug., Fruchhof, Reps. J. B. Mills & Co., 9 Queen St., Melbourne.

## British and Australasian Market Reports.

**London.**

Messrs. T. J. Poupart Ltd., Covent Garden, London, report, 17/7/25:—

A comparative scarcity of fruit, coupled with a high temperature, has assisted the demand for the majority of commodities handled at Covent Garden. South African Oranges have sold well, but Spanish are not quite so popular. West Indian and South African Grape fruit continues to realise high prices, and Spanish and Italian Lemons are a little firmer. Australasian and N.Z. Apples have not cleared so readily. West Indian and Canary Island Bananas have suffered from the competition of home-grown soft fruits. Azores Pine-apples are scarce and dear, but the smaller South African fruit is available at popular prices. The Canary Islands continue to send small quantities of Tomatoes. Spanish Tomatoes are plentiful. Large quantities of Washington Gages, as well as increasing numbers of Greengages, are being forwarded from various parts of Spain. Algiers continues to favour this market with some excellent examples of Plums. Italy is sending Plums and Greengages, and France's contribution consists of Apricots, Plums, Peaches, and small Pears. Holland is forwarding Black and Red Currants.

* * *

**London.**

Messrs. Gerald Da Costa report, 21/7/25:—

South African Oranges.—Navels, all counts, 20/- to 30/-; Pines, half cases, 5/- to 8/-; Grape-fruit, large fruit, 64's and 80's, 30/- to 32/6; 96's, 112's, 126's, 150's, 176's, 25/- to 30/-.

Australasian Apples.—W.A.: Cleos., per box, 12/- to 16/-; Dunn's, 13/- to 16/-; Rokewoods, 16/- to 18/-; Romes, 9/- to 12/-.

Tasmanian: N.Y.P., Sturmer, S.P.M., French Crabs, Stone, etc. (per case), 8/- to 13/-.

---

**Liverpool.**

Messrs. J. C. Houghton and Co. report, 15/7/25:—Apples, W.A., Dunn's, 18/-, 20/6; Cleos., 16/6, 21/6; Jon., 15/-, 17/6; Rokewood, 17/-, 18/-; Tas., S.T.P., 11/-, 15/9; Rokewood, 13/6, 18/6; L.P., 9/6, 13/9.

Valencia Oranges, ½ case, 300/360, 27/6, 34/-; S. African Navel, 96/126, 16/-, 20/-; 150/176, 23/-, 25/-; Seedlings, 150/176, 21/-, 24-.

**New South Wales.**

Mr. F. Chilton, City Fruit Markets, Sydney, reports under date 25/8/25:

The demand for citrus fruits, Pines, etc., has varied considerably lately, in keeping with the weather, which has been very changeable. When warm weather sets in, prices for these fruits are expected to improve.

Apples and Pears continue in light supply, and prices should gradually increase during the remainder of the season.

Queensland Fruits.—Bananas, 12/- to 22/- per case; Pines, smooth leaf, 9/- to 12/-; Ripley, 6/- to 9/-; Tomatoes, 4/- to 9/- per half case. New South Wales Fruits.—Bananas, 12/- to 22/- per case; Lemons, 2/6 to 5/- per bushel case; Oranges, common, 1/6 to 6/-; Navel, 6/- to 11/-; Mandarins, Emperor, 4/- to 12/-; Thorny, 3/- to 5/- per half case; Apples, Granny Smith, 10/- to 17/- per bushel case; Passions, 5/- to 14/- per half case. Victorian Fruits.—Apples, R.B., 9/- to 14/- per bushel case; Jonathan, 10/- to 15/-; Yates, 10/- to 16/-; Pears, W.C., 10/- to 13/-; Packham, 10/- to 13/-; Keiffer, 6/- to 8/-; Josephine, 11/- to 15/-. Tasmanian Fruits.—Apples, C.P.M., 11/- to 16/-; Dem., 12/- to 17/-; R.B., 10/- to 14/-; N.Y.P., 9/- to 14/-; Jonathan, 9/- to 15/-; F.C., 8/- to 14/-; S.P.M., 10/- to 15/-; W.C., 5/- to 7/6 per half case.

---

**VICTORIA.**

**Melbourne** (29/8/25).

Apples, eating, choice, 7/- to 11/- per case; cooking, 6/- to 9/-; inferior lower. Pineapples, Queensland, 8/- to 12/-. Bananas, 14/- to 25/-. Passion fruit, Victorian, 14/- to 20/-. Oranges, New South Wales, 6/- to 9/-; do., Jaffa, 7/- to 10/-; Victorian Navels, 8/- to 12/-; do., common Oranges, 6/- to 8/-. Mandarins, 8/- to 14/-. Lemons, Victorian, 6/- to 8/-. Queensland Tomatoes, 8/- to 12/-.

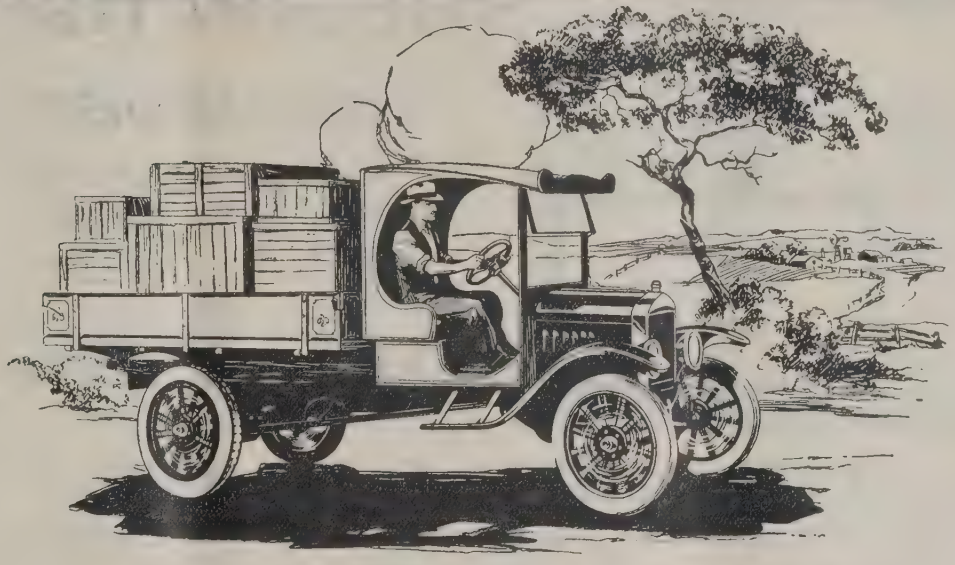
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**Melbourne.**

The V.C.C.A. Market Representative reports as follows for the week ending August 29th:—

Trade over the last few days has been very slow. The market is over supplied with poor quality fruit, while agents are experiencing difficulty in disposing of good brands at reasonable rates, they are having trouble in getting rid of the indifferent lines. The return for this class of fruit will be anything but satisfactory to growers, despite the fact that the greatest effort has been made to obtain the biggest value offering.

Prices.—Navels: Special, 10/- to 13/-; poor quality, 6/- to 8/-; common Oranges, Sydney, 6/- to 8/-; Mandarins, large, special, 12/- to 14/-; small almost unsaleable; Lemons 5/- to 8/-.



# BUILT FOR HARD SERVICE

Sturdy in construction, dependable and adaptable, the Ford Truck is an ideal haulage unit for work that demands exceptional stamina and regularity of performance.

An enthusiastic owner in the Mudgee District, N.S.W., says:—

"Owing to its high clearance and exceptional strength in low gear, the Ford Truck is ideal for anyone situated off the main road, and whose only access is by a rough bush track. With the help of chains I have taken heavy loads over an almost impossible track through rough scrub country and over swamps."

Everywhere farmers and merchants are depending more and more on Ford Trucks, because they provide quick delivery at low cost. The authorised Ford Dealer in your district will supply you with interesting facts of the saving of time, labour and money made possible by the Ford One-ton Truck.









NEW FORD TRUCK PRICES:

**Chassis** (without electric starter) - - - **£155**
**Truck** (complete with standard body) - - **£183**
**Chassis** (with electric starter) - - - **£175**
**Truck** (complete with standard body and electric starter) - **£203**

All Prices F.O.R. or F.O.B. at Ford Assembly Plant in each State.

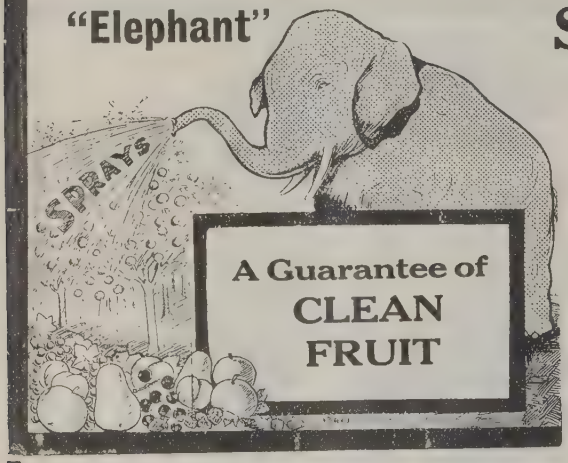
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BRANCHES IN ALL STATES.

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## ORCHARDISTS

should use only the best Fruit Sprays, therefore ask for and see that you get

## "Elephant" Brand

# PREPARED RED OIL

Prevents Growth of, and also destroys Scales, Woolly Aphis, Red Spider, &c.
Now is the time to order "ELEPHANT" BRAND RED OIL

Spray early to bring out blossoms early on late varieties of Apples and thus avoid ravages from thrips.

"Elephant" Brand Prepared Red Oil contains only the best lubricating oils and forms a nice emulsion. Also stays on the trees for a considerable time.

# LIME SULPHUR SOLUTION
# ARSENATE OF LEAD (PASTE & POWDER)

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**preader, Atomic Sulphur, Bordeaux, Sulphur, Weed Killer, Macclesfield, Bluestone, Etc. Etc.**

Write for a copy of the marvellous Government tests.

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Telephone: J 2008. Agents: Seedsmen, &c.

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The New Zealand Frgw's. Ltd., Box 882, Wellington, N.Z., p. 438.

**Canning Machines—**
Heine, John and Son Ltd., Sydney, N.S.W., p. xx.
Tombs & Howcroft Pty. Ltd., 369 Post Office Place, Melbourne, p. xxiv.

**Cases—**
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"FRUIT WORLD OF AUSTRALASIA."

Representing the Deciduous, Citrus and Dried Fruits Industry of Australasia.

Published the First of each Month.

Editorial and Management Notices.

**Articles and Photographs.**—The Editor will always be very pleased to receive articles and photographs for publication. Articles on spraying, pruning drainage, marketing, and other cultural matters, and reports of meetings, are welcomed. Please write on one side of paper only; include name and address (not necessarily for publication). Press matter sent in an open envelope, marked "Printer's MSS.," postage rate: 2 ozs., 1½d. Photographs, if sent in an open-ended package, marked "Photos. only," will travel at 2 ozs., 1½d. A short description of the photos. should be written on the back.

We do not hold ourselves responsible for the views expressed by our correspondents.

Subscriptions.

The annual subscription, post free within Australia and New Zealand, is 8/6. All other places, 10/6, post free. New subscriptions can commence at any date. Subscribers should notify us immediately of any change of address.

**Renewal Subscriptions** are due during the last month of the term covered by the previous payment, and unless notified to the contrary, the fact that the subscriber continues to accept delivery of the journal, is taken as proof that continuation of the subscription is desired, and we will continue to send regularly until notified in writing or copies are returned through the post.

Advertisements.

"The Fruit World of Australasia" is an advertising medium of proved value. Advertising rates may be had on application to our Head Office, or to agents in the various States, as set out below.

Changes of copy for advertisements must be in our hands on or before the 17th of the month prior to publication.

Readers are asked to make their purchases from our advertisers, who cover all lines of interest to orchardists, at the same time mentioning this journal. By so doing, the grower, the advertiser, and this paper will benefit.

Every care is taken to publish advertisements from reliable houses only, and to see that advertisements of an undesirable nature are not published. The management reserve the right to refuse to publish any announcements that they may regard as undesirable, either from the point of view of the goods offered or in the wording of the advertisement, notwithstanding the fact that a contract may have been entered into for the use of a certain space.

"The Fruit World" Offices (where copies and full particulars are obtainable) are as follows:—

**VICTORIA—9 Queen Street, Melbourne**

**NEW SOUTH WALES—8 Bridge Street, Sydney**

**South Australia:** W. F. McConnell, Grenfell Buildings, Grenfell Street, Adelaide. **Tasmania:** Saunders & Co., Murray Street, Hobart. **Western Australia:** D. L. Hetherington, Colonial Mutual Buildings, St. George's Terrace, Perth. **Queensland:** Gordon & Gotch Ltd., Queen Street, Brisbane. **New Zealand:** Gordon & Gotch Ltd., Wellington, Dunedin and Auckland. **Great Britain:** Harvey H. Mason, 1 Mitre Court, Fleet Street, London, E.C., England.

R. E. BOARDMAN, A.F.I.A., Managing Director and Editor.

E. H. WRAGG, Secretary and Advertising Manager.

**Tasmanian Director:** HON. L. M. SHOOBRIDGE, M.L.C.

## News in Brief.

Tasmanian growers express keen appreciation in the acceptance by the Australian Fruit Council of a resolution to alter the "plain" grade to allow the export of 100 per cent. slightly "spotted" Apples in each case.

* * *

It is estimated in official circles that South Africa will have 3,000,000 bushels of Oranges available for export in three years' time.

* * *

Strawberry growers in the Dandenong Ranges, Vic., report great damage by the cockchafer grub this season.

The United Berry Growers' Association is enlarging its marketing activities.

* * *

South Australia plans to send 10,000 trays of Plums to England this coming season.

* * *

Italy is now sending Pears, Peaches and Plums to England by means of refrigerated railway waggons. The waggons, which are fitted with ice chambers, are sealed in Italy, and not opened until arriving at London or Hull. The fruit carries in excellent condition.

* * *

The Apple variety, Tasman's Pride, from Tasmanian orchards, is gaining favor on interstate markets. It is a good colored Apple, nice flavor; tree, a vigorous grower, regular cropper, and resists disease well.

* * *

Fumigation for the eradication of Red Scale on citrus trees is advocated by Mr. W. S. Arnold, Manager Soldier Settlement, Kurrajong, N.S.W.

* * *

Fruitgrowers' Cool Stores Association of Victoria held a highly successful conference at Diamond Creek last month. Secretary J. G. Aird is a capable organiser.

* * *

Valuable hints on pruning citrus, spraying vines, cincturing Currants, irrigating and manuring are given by Mr. C. G. Savage under our "Fruitgrowing under Irrigation" Notes in this issue.

* * *

Some useful recipes for marmalade are given in this issue by a South Australian correspondent.

Spring Garden Week will be conducted in Melbourne on October 7, 8 and 9th.

* * *

"If you would live long, sing before breakfast," says a health expert. But not if you live in an apartment house, and have neighbours.

* * *

Large quantities of Oranges remain to be marketed in South Australia. The shipping strike restricted the export trade.

* * *

Speaking recently, the president of the New Zealand Fruitgrowers' Federation, Mr. T. C. Brash, said that New Zealand Apples had got right to the "top of the tree" as far as the London market was concerned. One of the things about which they could well be proud was the fact that they had established a National brand for the whole of the fruit exported from New Zealand. Since 1920 there had been a 500 per cent. increase in the quantity of fruit sent abroad. The demand for New Zealand Apples in England in competition with Apples from all other parts of the world was marvellous.

## FRUIT FOR SOUTH AUSTRALIA.

### Clean Certificate is Necessary.

The Superintendent of Horticulture (Mr. J. M. Ward) desires to inform shippers of fruit to South Australia that a certificate, signed by the local orchard supervisor to the effect that the Mediterranean Fruit Fly has not been found for the last two years with a five-mile radius of where the fruit was grown, must accompany each consignment, otherwise the South Australian regulations will not permit the entry of the fruit into that State.

Before forwarding the fruit, application for certificate should be made either to the local orchard supervisor, or, in instances where the shipper is not acquainted with the name of the orchard supervisor to the Superintendent of Horticulture, 605 Flinders-street, Melbourne.

He who gives much advice, and little aid,
When on the heart woe's heavy load is laid,
Is one who sweeps a cobweb from the wall,
And leaves the great black spider after all.

Life does not come to us in lifetimes; it comes only a day at a time.

# Editorial Chats



## THE SHIPPING STRIKE.

THE continued shipping strike is fraught with serious consequences to the fruit industry. Our South African friends suffered in having their export trade disorganised, inflicting heavy losses on the producers. As regards Australia, the organising of the next season's fresh fruit export is already being hampered, because the call of particular steamers suited to the trade is uncertain.

Australia depends for its wealth on the export of the world's primary products—wool, meat, butter, fruit, etc., and the present unauthorised strike of British seamen in Australia has already done great harm to Australian primary producers. The strike is discountenanced by union leaders in England, but is fomented here by avowed communists.

* * *

Parliament has been prorogued, and a general election will take place on November 14th. Primary producers generally appreciate the splendid services rendered by the Prime Minister and the honorable achievements of the Bruce-Page Ministry. Voting is compulsory. Men and women who love their country may be relied on to vote solidly in favor of constitutional Government by the elected representatives of the people. The present Government has amply justified its existence and warrants continued support.

## "BLACK SPOT" FRUIT.

### Rejected in New South Wales.

The Superintendent of Horticulture (Mr. J. M. Ward) is in receipt of a communication from the New South Wales Department of Agriculture, drawing attention to many consignments of Apples and Pears arriving in that State from Victoria, which are badly infected with Black Spot, particularly Pears.

Mr. Ward points out that unless growers discontinue this practice the New South Wales authorities will return the fruit, as has already been done in one or two instances.

## THE ROOT BORER.

(The Editor, "Fruit World.")

Sir,—I wish to thank you and your contributor for the article on the Root Borer. I have followed the practice of using the zinc bands, but I found them terrible harbours for codlin grubs. A single band on a tree with a heavy crop of Apples would be found, when loosening it in the winter, to have 20 and more grubs under it. The borer beetles are most in evidence in the spring, and I enquired if there were many likely to be coming up after Christmas, and was told they were all up by then. I accordingly remove the bands about the New Year to deprive the codlin grubs of a safe shelter; but I have found borer beetles on the trees in every month of the year. Can anyone say if those about from January to July have lived since December? or, if they have come up since, are they likely to breed so late?

Further, many beetles get up the trees in spite of the bands, which are, apparently, more in the nature of a hindrance than an absolute preventive. I understand that the Government scientific officers have for years been carrying out experiments. Could their results be published? Even if still incomplete, they would give growers some idea of lines of attack which might be followed, and of others which were useless. In the meantime, trees are going out of bearing every year through this pest.—Yours, etc.,

HURSTBRIDGE.

* * *

## THE PROPOSED ORCHARD TAX In SOUTH AUSTRALIA.

### "Referendum Should be Taken."

(The Editor, "Fruit World.")

Sir,—I notice in your valuable paper an article on the Orchard Registration in Victoria, and what the intentions of the supporters are in relation to it.

**Administration.**—Firstly, the only place on earth (that I know of) that this tax is in operation is New Zealand, passed, I believe, in 1916, was, as far as I can learn, for the same purpose as the proposed tax in S.A., but how do we find this working out? The latest balance-sheet (December, 1924) shows cash received, £1,700; cost of collection, £382. The principal items of expenditure are:—Advertising, £150; conference expenses, £297; directors' expenses, £78; experimental account, £56; office expenses, £55; rent, etc., £83; salaries, £350, leaving a balance of £248. What new markets have been opened up during the time this tax has been in operation, and where are they?

Does it not appear ridiculous to think that our wholesale merchants, who are ever alive to push their business and open up fresh avenues of trade, are not doing their very best, under the circumstances, which would enlarge their output?

By the above balance-sheet one is bound to ask what benefit has the grower received for the taxes paid. I think the figures speak for themselves.

Was it not a fact that the Government in the Dominion had a great difficulty in collecting the last tax, and if so if it were such a good thing, why the trouble in collecting it?

In South Australia this tax has been brought before the Executive of the Fruitgrowers' Association for about four years, and until this year has been turned down, but has been carried (after a fashion) by branches of the Fruitgrowers' Association. For instance, the Market Branch of 300 members, 18 voted—6 against, and 12 for it.

One of the arguments used for the tax was that 700 growers failed to join the Association (the membership is only 800), and by a tax on orchards they will be forced into the Association (or, rather, bludgeoned in by Act of Parliament).

I want to know what legislator can be found in our Parliament who does not value his freedom, and what sane person could think for one moment that an Act of Parliament, such as this is going to compel any grower to bow down to the idol of tyranny.

Another proposal is to buy up surplus products on our markets, and turn them into the manufactured article, and put them on the world's market. By so doing, you might keep up prices for a short time in the local market, but as sure as the sun rises you will create a surplus the other end.

The whole solution of the fruit industry, to my mind, is the millions (not thousands of £) that have been spent on growing fruit, when there is no market to sell it in at a profit.

Take the **Dried Fruit** industry. When the war was raging, and the countries, such as Greece and Turkey had only their own requirements, prices went up, and Australian growers were told they had unlimited markets and could not grow enough. Now that things have come back to normal, the situation has changed altogether, and you can buy imported dried fruits cheaper than the local ones.

Not until we can produce our fruit and place it on the world's market to compete with the world on world's prices, can we ever expect to overcome the difficulty.

Before the tax is passed on to the fruit and vegetable growers, they ought to have a referendum taken to see if they want it or not.

(Sgd.) CHARLES W. GILES.
Grove Hill, South Australia.

## ANSWERS TO CORRESPONDENTS

**Oil with Bordeaux Spraying.**—A reader at Angaston, S.A., asks:—Can red oil be mixed with Bordeaux or Burgundy, and sprayed on together with no ill effect to the oil or spray?

**Answer** (by G. Savage, S.A. Deputy Horticultural Instructor).—I would advise using the oil separate from the copper sprays. Spray the Bordeaux or Burgundy mixture on first, and follow on with the oil spray after the first spray has dried.

* * *

**Black Spot.**—A reader at Bowensfel, N.S.W., asks:—Can I add Lime-Sulphur to Red Oil in order to combat Black Spot, as it has been very bad this last season? If so, what quantities to a 40 gallon charge of oil spray?

**Answer** (by C. French, Jr., Vic. Govt. Entomologist).—Lime-Sulphur should not be used with Red Oil.

* * *

**Beekeeping.**—A reader at Berri, S.A., asks:—(1) Is caustic soda and potash dipped fruit the cause of a number of small beekeepers losing many hives of bees? (2) Can you give us any information relative to foul brood—principally the cause of the disease.

**Answer** (by F. R. Beuhne, Vic. Govt. Apiarist).—Fruit juices are not normal food for bees, and they collect them only when there is a dearth of nectar, owing to the absence of flowers, or owing to non-secretion in the flowers. Bees that have to subsist for any length of time on fruit juice, or to rear brood on such food, and (or) winter on it, are short-lived and often dwindling away. I do not think that the lye in which the fruit is dipped has anything to do with the loss of the bees, for I know of several instances of bad results following the gathering of fresh (undipped) fruit juices by bees, during a scarcity of nectar. (2) On pages 393-5 of the September issue of the "Fruit World," appears an article on Foul Brood in bees, which covers this query.

**Armillaria.**—A subscriber at Lenswood, S.A., writes:—Can you give a cure for Armillaria? It is in 8-year-old Rome Beauty trees, and is gradually spreading from one until it is now affecting ten in a block. I would be pleased to hear something that will keep it in check.

**Answer** (by J. M. Ward, Vic. Supt. of Horticulture).—Remove soil from roots, then cut away any roots that may be dead. Clean up all traces of the disease from the roots, paint these with Bordeaux paste, 1 lb. sulphate of copper and 1 lb. fresh slaked lime to about 1 gallon of water. Apply from 1 to 2 lbs. sulphate of copper amongst the soil surrounding roots.

It may be advisable to have roots exposed to weather for a few weeks. If tree too much affected to make a recovery, it should, together with all roots, be removed, the hole treated with an application of sulphate of iron and fresh soil supplied to hole, and plant another tree. Care should be taken to see that all traces of roots of native trees that may be present in the soil are removed, as this harbours the disease.

**Answer** (by Geo. Quinn, S.A. Horticultural Instructor, etc.).—The root destroying fungus (Armillaria mellea), or honey agaric, as it is commonly called, spreads through the soil from tree to tree by means of the underground, grayish-black, cord-like threads (rhizomorphs) which attack the roots.

Owing to the adoption of such an insidious method of distribution, the exact extent of the spread is often not suspected until trees begin to cease growing, and the foliage to turn yellow earlier than is normal in the summer. The fungus also propagates by means of spores shed from the honey colored mushroom-like fructifications (sporophores) which usually appear in clusters about August and September around the bases of stumps of trees, or from large roots which run immediately below the ground surface.

This form of the fungus is seldom suspected by the fruitgrower as having any connection with the creamy, white feltlike fungus which is found in layers beneath the bark and filling the sap layers of tissue in the affected tree. Neither are the greyish black strands (rhizomorphs) often connected with the fungus found encircling and cutting off the saplayers in root or crown of the trees. Further, the mushroom-like fructification is found more often at the bases of stumps of long since dead fruit and other trees than on living ones, showing that it grows more as a saprophyte (existing on dead organic matter) than as a direct parasite drawing sustenance from the living plant substances.

This fungus, in our climate at any rate, only makes itself a nuisance in wet spots of land—usually lacking in drainage during the rainy season. The principal preventive measure is consequently found in providing effective drainage. As the rhizomorphs only traverse the soil to a depth of approximately eighteen inches, the disease may be circumscribed to a suspected area by digging a trench around it, always enclosing a row or so of trees further out than any injury is noticeable on the trees. This enclosed area should be underdrained, and a heavy dressing of iron sulphate spread over the roughly broken soil. Every bit of woody root or portion of trunk of trees killed by the fungus should be collected and burnt.

## TO OUR READERS.

On several subjects, condensed reports have been published this issue owing to pressure on space. Where possible added details will be given next month. The Editor would be grateful if readers would write, indicating the subjects on which further details are desired.

## OBITUARY.

On the 20th August last the death took place at Sydney of Mr. John Jenkins, the principal of the firm of John Jenkins, Fruit Exchange, Sydney, after a very brief illness. Mr. John Jenkins established his firm 42 years ago, in the year 1883. He was one of the founders of the N.S.W. Fruit Exchange Company. He was actively interested in any matter concerning the welfare of the fruit trade in every department. The business is being continued without change, and is conducted by his three sons, under the management of Mr. L. J. Jenkins, who has had full control of the business for the past ten years. A great mark of respect was shown to Mr. Jenkins by the number who paid their last respects, the Fruit Exchange being closed at mid-day to permit all his old associates to attend the funeral.

## DUTY ON PRESERVED CHERRIES.

### Need for Tariff Revision.

(To the Editor, "The Fruit World.")

Sir,—

Duty on Cherries in Brine.—Although our firm applied for a reduction in the duty on Cherries in brine, our intention was to get a revision of the duty on Cherries in other forms. We noticed in the newspapers recently a statement that several hundred tons of Cherries were imported per annum. For the information of your readers, we state the position of the duties as follows:—

**Duty on Cherries Brined, Drained, Crystallised and Maraschino. Cherries in Brine with Stalks and Stones.**—On further investigating this matter, we find that a gallon of Cherries in brine weighs 11 lbs., but contains only 7 lbs. of Cherries with stalks—the remaining 4 lbs. being brine.

These would be imported from Spain or Italy, and would pay duty at the rate of 3/- per gallon on the Cherries, including the brine. The effective duty on the 7 lbs. of Cherries would therefore be 5¼d. per lb. The price of the Cherries in brine c.i.f. Melbourne is 3¾d. per lb., so that the duty on the Cherries in brine represents 140 per cent. of the c.i.f price.

Presuming that these Cherries were used in Australia for making drained Cherries for bakers' use, they would lose 45 per cent. in weight, and the duty on the brined Cherries would be equal to 9½d. per lb., based on the weight, when drained, Cherries produced.

**Cherries in Brine without Stones.**—If imported free from stones and stalks, the weight would be 5½ lbs. of Cherries per gallon, and the duty would be 6¾d. per lb. The c.i.f. price is 5¾d., and the duty represents 113 per cent of the c.i.f. price. When manufactured into drained Cherries, the weight would shrink to 4¾ lbs., and the duty would cost 7¼d. per lb. of drained Cherries produced.

**Drained Cherries.**—If imported as drained Cherries, however, the Customs Department allows 11 lbs. per gallon. The duty is the same as that on Cherries in brine, namely, that of 3/- per gallon. The duty is therefore 3¼d. per lb., representing 31 per cent. of the c.i.f. price 10½d. per lb. On the other hand, the duty on drained Cherries imported in brine and manufactured in Australia, works out at 7¼d. per lb. (113 per cent.) if imported without stones and stalks, or 9d. per lb. (140 per cent.) if imported with stones and stalks.

**Stabilising the Industry.**—We, therefore, are of the opinion that the duty on drained Cherries should be raised, while that on Cherries in brine should be lowered. At present, no Cherries in brine are imported so far as we know, while a large quantity of drained Cherries are imported at much less than the cost of production in Australia. To stabilise the industry of growing and manufacturing Cherries, it is desirable that manufacturers should be able to import Cherries in brine at a slightly higher duty paid price than the fresh fruit in the event of a failure of the Cherry crop, which happens frequently.

**Maraschino Cherries.**—These pay the same duty per gallon as Cherries in brine and drained Cherries, as all are classed under the items 54A to 54E. This demonstrates that the duty on Cherries in brine is too high. The duty on the c.i.f. price of Maraschino Cherries from France works out at approximately 12½ per cent. on quarter pints (54A), 16 per cent. on half pints (54B), 20 per cent. on pints (54C), 25 per cent. on quarts (54D), and 25 per cent. on gallons (54E). We think that these duties should be doubled. Altered on all sizes to 35 per cent. British, 45 per cent. Intermediate, and 45 per cent. General.

**Crystallised Cherries.**—The duty on these under item 44E (candied fruits), is 35 per cent., or 3d. per lb., 45 per cent., or 3½d. per lb., 45 per cent., or 3½d. per lb. It appears to us that on account of the high cost of production in Australia, the duty for both drained and crystallised Cherries should be revised to at least 35 per cent., or 4d. per lb. (British), 45 per cent., or 5d. per lb. (Intermediate), 45 per cent., or 5d. per lb. (General), whichever is the highest. On the other hand, the duty on Cherries in brine should be reduced to 1/-, 1/3 and 1/6 per gallon.

We regret to inform you that as far as our experience is concerned, the business of manufacturing Maraschino, Crystallised and Drained Cherries has not proved to be a profitable venture, on account of the fact that the duties on Drained, Crystallised and Maraschino Cherries are too low.

We think it would be to the interests of growers to apply for a revision of the duties on Drained, Crystallised and Maraschino Cherries, when the matter comes before the Tariff Board.—Yours truly,

C. M. BROOKE & SONS.
Whiteman St., S. Melbourne, Vic.
24/9/25.

## FIGHTING CODLIN MOTH.

Garden pests are legion, but among the variety numbers none more vigorous than Codlin Moth. The use of Arsenate of Lead as a spray has been found to give good results.

Notification is now to hand that the Corona Chemical Division of the Pittsburgh Plate Glass Company of Newark, New Jersey, U.S.A., well-known in the States for their products—is introducing into this market their "Corona Dry" Arsenate of Lead.

About fourteen years ago this company, after many years' experiment, patented a special process for manufacturing an extremely fine dry powdered Arsenate of Lead, which, when brought to the notice of fruit-growers in the United States, was an immediate success.

The manufacturers point out that "Corona Dry" is a chemically pure Arsenate of Lead formed by the combination of lead oxide and arsenic oxide. It is all active—containing not the smallest fraction of inert material. This product contains one-third arsenic—the most effective known poison for leaf-eating insects—which is closely combined with the pure lead in such a way that there is no free arsenic left to "burn" the foliage.

It is further claimed that the ease with which "Corona Dry" mixes in water, makes preparing for the spraying applicaton a simple as well as accurate operation. It is not necessary to make a paste of "Corona," and pass it through a strainer to know that the lumps are thoroughly broken up. It is only necessary to shake the proportional amount of "Corona Dry" into the spray tank, and the agitator will quickly make an even and smooth mixture, but the "Corona Dry" should always be added to the water.

"Corona Dry" is stated to be simpler, cleaner and easier to handle than a paste material, and cannot dry out, cake, or lose its strength.

This material is manufactured with the idea of securing softness and fineness of physical structure, together with a proper combination of materials to give the highest efficiency. It is this extreme fineness and fluffiness that cause it to remain in suspension, thereby giving more even distribution.

The agents in New Zealand are the N.Z. Fruitgrowers' Federation Ltd., Wellington. Responsible distributors are desired for each of the Australian States.

# New Zealand.

Interesting News and Notes : Cultural Items.

## The Month's Work.

### October 20th—November 20th.

IN many districts in the North Island last season very severe losses of stone fruits were suffered through the ravages of **brown rot**, and unless stringent measures are taken to prevent a recurrence of this trouble, there is every likelihood of a similar experience befalling growers this year. For this reason it is necessary that a very careful watch should be kept for this disease, and a thorough spraying programme carried out. Lime-Sulphur will be found a useful spray to prevent the disease.

It is probable that many of the trees will have now set more fruit than the tree can possibly mature, in which case **thinning** will have to be carried out, for no tree can produce an even crop of fruit if overladen. Further thinning can be carried out later in the season by picking off any of the diseased or malformed fruit. Summer pruning cannot be recommended, and the most that should be done is a little pinching off of the stronger growing branches where these are leaping ahead of the weaker ones. By careful handling in this manner it is often possible to build up young trees where the growth has commenced in an uneven manner.

A thorough system of **spraying** must be carried out throughout the whole of the growing season from the time the petals fall until the fruit is ready for picking. This should be done at least every twenty-one days, and many growers prefer to be on the safe side and spray every fortnight. Arsenate of lead is put up by many different firms, the great majority of the mixtures being good. It should be mixed at the rate of 1½ lb. of paste to 50 gallons of water, while if the powder is used about ¾ lb. is needed to every 50 gallons.

Trees that have been grafted should now be watched, and when the scion begins to swell, the material which has been used to tie the graft should be loosened.

Careful cultivation work should be carried out among the citrus trees, and a keen watch kept for the development of brown rot, which is often troublesome at this time of the year. Wet weather favors the spreading of the spores of this disease, and it is therefore necessary that all diseased fruit should either be burned or deeply buried. The former method is the one to be preferred. Bordeaux mixture should be applied to the trees as the occasion demands, at a strength of 4-4-40.

The time is now approaching when the stone fruits will be ready for placing on the market, and when this time arrives, growers should take care that only attractive packages are sent in. In these days of keen competition the method of packing and the attractiveness of the package itself are both very important factors in the disposal of fruit.

## EXPORT OF APPLES.

### Government Guarantee Renewed.

An interesting review of the position of the Dominion with regard to the exportation of Apples was recently given by Colonel Gray, Chairman of the Export Control Board, at Nelson. He showed that while much had been accomplished during recent years, there were still many problems facing the industry, and that the best brains would have to be engaged in order to solve them.

Hawke's Bay and Auckland had, he said, decided to go in strongly for export during the coming season, and combined with the Nelson shipments, it would mean that proper provision would have to be made at Wellington for pre-cooling. The Harbor Board at Wellington was aware of the position, and they would make arrangements for the storage of about 50,000 cases. Some provision would eventually be required to be made at Nelson, especially if the export trade continued to develop at anything like its present rate.

The Government had agreed to renew the guarantee of 1d. a lb. next season on any quantity up to 350,000 cases, in order to still further encourage the exportation of New Zealand Apples. One suggestion which the Board had recently adopted was that wrappers should be placed round the Apples, giving the country of origin, and it was intended in future that this should take the form of what would practically be a **National brand**, and that the various district marks would be eliminated. This innovation would cost the growers about an additional ½d. a case, but this would more than be repaid by the resultant increase in price. The retailers at Home had come to recognise the merit of the New Zealand and Australian Apples, and they wanted to be able to push these lines. In order that they could do so, it was necessary to give them something to work on by means of the brand.

The South American market had not been satisfactory, and the Board would have to carefully consider this question, and see what was best to be done in the interests of the fruitgrowers. It was very necessary that further information should be obtained with regard to the requirements of South America and the opportunities ahead of New Zealand Apples in that country before any endeavour was made to build up the export to South America.

## FRUITGROWING IN HAWKE'S BAY.

### Exports Increasing.

Growers in the Hawke's Bay district have, on the whole, had a fairly satisfactory season, and the increase in the production shows that fruitgrowing as a commercial proposition is presenting a greater appeal now than in the past. In common with other districts in New Zealand, Hawke's Bay has found during recent years that the over-production of Apples meant smaller prices on the local market, and for that reason they have aimed at the rapid development of an export trade. Every year a large quantity of fruit is railed from Hawke's Bay to Wellington and Auckland, where it comes into competition with the Nelson fruit, and as the facilities for railage are good, it can compete on very good terms. The over-supply of any market, however, inevitably reflects on growers generally, and it is therefore pleasing to see the development of an export trade. With an improved control of the export marketing there is every reason to look forward to the future with confidence.

The trend of the industry may be gauged by the increase in production, as shown by the quantity of fruit railed from Hastings, and though production in itself is not a criterion, the figures given below show that there is a growing demand for fruit, and that Hawke's Bay is doing its share in meeting that demand. The total weight of fruit railed from Hastings during 1924 was about 8,400

tons, or 353,000 cases. This year, 11,000 tons, or 465,000 cases have been sent out, this being a very big increase on last year's figures.

During the season which has just closed, Hawke's Bay has taken a very much larger share in the export trade, a feature which is bound to grow for many years yet. This year more than 20,000 cases were exported to England from Hawke's Bay, and very good prices were received for the majority of the shipments. One Hastings grower received £1,422 for 1,389 cases, which were despatched to England—a price which must surely be regarded as satisfactory.

Those with a wide knowledge of fruitgrowing in Hawke's Bay over a long period consider that the prospects are brighter than they have been for many years, and that with an improvement in the export market and improved control, good days are ahead of the orchardists.

## EXPORT CASES.

### Supplies from Canada.

By the time these notes appear in print the Fruitgrowers' Federation will have placed its order for next season's export cases with firms in Canada, and local sawmillers will have lost the opportunity of making several hundred thousand cases. Season after season the local mills complain about the unfairness of the order being sent out of the country, but the fact remains that not only are the Canadian cases landed at much less cost than it is possible to make up cases for, in New Zealand, but the cases themselves are superior to the locally produced article.

Cases produced in this country, and made of Rimu, have been tried out in the past with more or less success, but in many cases when the order has been delivered it has been found that instead of being of uniform thickness throughout, the boards of the cases are thick at one end and thin at the other. The slightest deviation from the stipulated size where export cases are concerned means difficulties with the packing, and New Zealand made cases have at times had to be rejected on account of this fault.

The cost of the Canadian cases, made up of 5-16th inch boards, is in the vicinity of 9d. each, a price with which local millers are totally unable to compete. To the first cost has to be added an import duty, but when the cases are used for export, this is remitted.

It is admitted, of course, that local millers are considerably handicapped by the nature of the forest with which they have to deal, and differences in other external conditions, but in view of the very great difference in price, and the more satisfactory nature of the Canadian case, it would be unreasonable to expect growers in this country to support local industry to the detriment of their own packing.

An interesting point in connection with the careful handling and packing of fruit is that many growers are now taking nearly as much care with the fruit they send to the local market as with the consignments they forward to England, and those who adopt this policy declare that it is warranted by the results.

## FRUIT EXPORT.

### Poverty Bay to Enter Field.

As the results of over-production during the past season, and the consequent difficulty of disposing of all the fruit on the local market, the growers in Poverty Bay have decided to enter the fruit exporting field, and next season a start will be made with about 3,000 cases. It is probable that this decision will mean the rapid development of fruitgrowing in the district which is eminently suited by reason of its climate, to the production of the finest quality Apples. During the 1924 season a trial shipment of Ballarat Seedlings was made to the Home market, and these sold at very fair prices, although the Apple is not generally considered particularly suited to the English market.

Poverty Bay is one of the most isolated districts in the Dominion, and by reason of this fact the growers have in the past been almost free from outside competition, and the local prices have been considerably above those ruling in the main centres. The gradual development of the orchard business has, however, led to a state of over-production, and during this season, when the Apple crops were good, much more fruit was gathered than could reasonably be consumed in the district. The result was immediately apparent for the growers commenced to cut the prices, and quit the damaged fruit so that the remainder could be placed in the cool store. It was apparent that the time had come when production was too great for local needs, and as coastal freights are so heavy, the only alternative lies in export to England.

The question was dealt with at a recent meeting of the local Fruitgrowers' Association, and the orchard inspector pointed out that as there were many young orchards coming into bearing, the position would gradually grow worse. He urged them to commence export during the coming season, while the Government guarantee was still in operation. It was all very well to advance the argument that the prices on the English market were not as good as those obtainable locally, but they had to remember that once the local market was over-supplied, the prices would fall.

After some discussion by the growers present, it was decided that export should be commenced during the coming season and arrangements were made to obtain between 3,000 and 4,000 of the cases which the N.Z. Fruitgrowers Federation are getting from Canada. None of the growers are keen to export large quantities of Apples as they realise that the local prices are the best, but some method of co-operation is aimed at, whereby each of the commercial orchardists will export at least some portion of his Apple crop.

Although Poverty Bay is at present one of the smaller of the fruitgrowing districts of New Zealand there are those who believe that the growth of the industry is going to be very rapid. The climate is ideal and so is the soil, and it is quite probable that many new orchards will now be planted as the result of the latest decision.

## SALE OF LEMONS.

### Supplying N. Z. Requirements.

### Increased Duty Wanted.

The position with regard to the citrus fruit industry in the Dominion is not quite satisfactory. A short time ago there was a move in the South Island to have the duty on imported Lemons removed, and immediately the growers in the north made a vigorous protest. Following on the demand for the removal of the duty, the Fruitgrowers' Federation took up the matter, and they moved that the Government be asked to double the duty on imported Lemons other than those which were produced within the Empire.

There are several interesting factors connected with the situation. More than 20,000 cases of Lemons are imported into New Zealand every year. Some of these come from Australia, but the majority of the imported Lemons are brought all the way from Italy.

Southern buyers object to paying increased duty when Lemons from the North Island should be available for their consumption.

A profitable field for Australian Lemons lies in the development of the southern market, for the Australian article should be more than able to compete with the Italian Lemons. It is doubtful whether for some years to come, New Zealand will produce sufficient Lemons to satisfy her requirements, and until such time arrives it is to be hoped that Australia and not Italy will be supplying the balance, and thus keeping up the trade within the Empire.

It is suggested North Island growers could with profit improve the grading of the Lemons which they export to the south.

Australian growers who are considering the question of exporting a portion of their Lemon crop to New Zealand should be scrupulous with regard to the grading, for buyers here very much prefer the cases which show Lemons of good even size, properly cured and graded.

## COOL STORAGE OF PEARS.

The results obtained in the cool stores of the Dominion during recent seasons demonstrate the necessity for extreme care in the handling of Pears which are to be stored for any length of time. While many varieties are liable to speck when in cool store, the greater part of the trouble experienced may be traced to rough handling. Undoubtedly one of the greatest factors in the cool storage of Pears is the particular season in which they are picked, and for that reason it would be interesting and useful if fuller data were available as to the effects of cool storage on Pears in different seasons.

The conditions vary considerably from season to season, and although the fruit may be picked on consecutive seasons from the same trees, and receive the same treatment, different results are obtained. The locality of the orchard, the nature of the ground, and the age of the trees all play their part in the cool storage problem. Varieties, such as Madame Cole and Winter Cole, are very liable to speck when in the cool store, while fruit which is grown in mountainous country is usually hardy, with good keeping qualities.

The system of storage adopted in many parts of New Zealand was without doubt the cause of much of the trouble, but recently, the stores, acting on the advice of the Department of Agriculture, have adopted better systems of ventilation, and by making uniform stacks with a free circulation of air around each case, they have greatly improved the conditions.

Pears cannot, by their very nature, be expected to keep as long in cool store as Apples, but with careful handling both before and after picking, they may be kept successfully for three or four months. The cool stores of New Zealand have rendered signal service to the growers by their adoption of the very latest methods of ventilation, and it therefore behoves the growers on their part to assist in getting better results through using every care in the handling of the fruit.

## AROUND THE DOMINION.

### Notes from Here and There.

Sturmers were the most popular variety exported to England during the season, no less than 68,092 cases being exported out of a total of 232,761 cases sent to outside markets. Jonathans were next with 59,011 cases. The next ten most popular varieties were — Delicious, 21,954 cases; Dunn's, 18,131 cases; Dougherty, 14,802 cases; Cox's, 7,932; Statesman, 7,776; Rome Beauty, 5,657; London Pippin, 4,874; Scarlet Nonpareil, 3,111; Cleopatra, 2,588; Newtown Pippin, 2,417.

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The satisfactory state of the export market was the subject of favourable comment recently by the President of the N.Z. Fruitgrowers' Federation, Mr. T. C. Brash, who said that New Zealand Apples were right at the top so far as quality was concerned on the London market. **They had succeeded in establishing a uniform brand for the whole of the Apples exported from the Dominion** —a thing of which they could well be proud. Since 1920 there had been an increase of 500 per cent. in the quantity of fruit sent abroad from New Zealand.

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It is interesting to note that of all the displays made at the Wembley Exhibition, the only one which more than paid its way, was fruit, and, largely through the efforts of Mr. Attwood, 90,000 cases of New Zealand Apples were sold there.

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Since control has been brought into force, an export levy of ½d. per case is made to cover the work done by the Board. Much has already been accomplished with the money obtained in this manner, and one of the most useful methods adopted has been the printing of posters and display cards for the popularising of fruit. These form one of the most efficient ways of increasing the demand for New Zealand Apples.

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The directors of the New Zealand Fruitgrowers' Federation for the ensuing year, as recently elected, are Messrs. T. C. Brash, J. Allan, T. C. Cone, H. Turner, D. Haining, A. M. Robertson, and H. S. Izard.

* * *

A drastic resolution, passed at the Annual Conference of the N.Z. Fruitgrowers' Federation this year, was that which asked the Government to put a total embargo on the importation of fruit from the United States. This resolution is really the result of the feeling which has resulted through the attempt to keep New Zealand fruit out of the Argentine this season. It was generally believed that the hand of the United States was behind the declaration which prohibited New Zealand fruit going into the Argentine, because of the alleged fruit fly in the Dominion, and the remit was evidently adopted as something in the nature of a reprisal. It was explained that the United States and New Zealand are in negotiation regarding certain points, and the discussion may assist these to a favorable conclusion.

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Another resolution, which aimed at protecting the interests of the growers, was that which asked that the import duty of 1d. a pound on imported Apples be maintained all the year round. This was also carried, and there is no doubt that the time has arrived when it should be put into effect. The local industry needs every protection which can be afforded, and it is only reasonable that all fruit coming into the country should have to pay the 1d. a lb. tax all the year round.

### Spring Spraying Programme—Auckland District, N.Z.

A correspondent at Auckland sends the following interesting news under date September 8th:—

**Stone Fruits.**—For the control of leaf curl and other fungus diseases we use Bordeaux applied at bud movement, 5-4-50. Some use it at 8-6-50, while others obtain very good results from Sulphate of Copper, 4 lbs to 100. Equally good control is obtained with Lime Sulphur, 1-15.

In order to combat scales, red mites, and aphis, a spray of red oil 1-12 to 1-17 is often used immediately after any of the above.

The Bordeaux or Lime Sulphur Spray as above helps to check Brown Rot, and some growers for the control of that disease spray their stone fruits with Lime Sulphur at the following additional periods—Early Pink 1-50, Petal fall 1-120, and two or three further sprays at 1-120 till the fruit matures. At present there is no known remedy for this disease which takes very heavy toll in this district, but our Government Department of Horticulture is this season embarking on a varied experimental schedule in order to try and find one.

**Pip Fruits.**—For the control of Scales we use Red Oil 1-12 in the dormant season, or 1-17 at bud movements. For fungus diseases, black spot, etc.—at green tip, Bordeaux 5-4-40, or Lime Sulphur 1-12; open cluster, Bordeaux 3-4-40, or Lime Sulphur 1-30; Petal fall, Bordeaux 3-4-40, or Lime Sulphur 1-100, and Arsenate of Lead. This last spray is continued right through the season at intervals of 21 to 28 days. But although Bordeaux can be used on Pears throughout the season it is seldom used on Apples beyond the first two applications for fear of russetting.

If Powdery Mildew is present then two applications of Atomic Sulphur 4-40 is used, one at open cluster, and the other at petal fall. Arsenate of lead is used for the control of Codlin Moth, etc., in the strength of ¾ lb of Powder or 1½ lbs of paste to 40 gallons.

Spreaders are now being used to a large extent and excellent results are being obtained. There are two or more proprietary spreaders on the market, but as a spreader made from Lime and Casein is comparatively cheap, the latter is more often used. Skim milk if sweet also acts as a good spreader, but some milk of lime must be added to prevent burning of foliage.

**It will be noticed that no mention has been made of that terrible bugbear to the Apple grower, viz. Woolly Aphis. It is conspicuous by its absence from our orchards thanks to the parasite Aphelinus Mali, which in two years has practically cleaned up every colony of Woolly Aphis, not only in this district, but nearly througout the Dominion and so has saved us thousands of pounds, not only in sprays, but in the health and growth of our trees.**

Unfortunately there is another pest which plays havoc with our Pear trees. The Pear Midge which from most varieties of Pears completely denudes the leaves and prevents any growth. No young trees can be grown in this district nor can trees be worked over with more profitable varieties. Our Department of Horticulture has at last obtained a parasite and it is to be hoped that it will be as successful as the Aphelinus Mali.

**Citrus Fruits.**—For the control of Verrucosis and Scab. Bordeaux 3-4-40 at blossom fall in the spring and autumn. For scales and certain insects, Red Oil 1-40 shortly after the above Bordeaux sprays.

### Manuring.

It is quite impossible to give any standard of manuring for this district, for the soil varies so. The writer, in his 20 acres of orchards has cold clay slopes facing the east, well-drained clay flats and good river flats with rich loam but a clay sub-soil.

Other growers may have old swamp lands, others volcanic or semi-volcanic lands. All these classes of land require different treatment, but lime in various forms, phosphates and nitrogen are all more or less required.

Green manuring whether it be from Lupins sown in January and ploughed in about July, or from other cover crops, is being more generally attended to with excellent results. If artificial manures are used then they are applied and ploughed in with the spring ploughing.

## CONVERSION LOAN.

### Over £40,000,000 Subscribed.

### Present Owners Offered Cash.

An offer of immediate cash payment, in exchange for maturing 1925 securities, has been made by the Commonwealth Treasurer. Dr. Earle Page announced on Saturday last that he is willing now to accept the surrender of 4½ per cent. stock and bonds which mature on 15th December next. For each £100 surrendered he would pay £100, in addition to interest at 4½ per cent., calculated up to the day of surrender. The amount which the Treasurer was prepared to accept in this way was limited to £2,000,000, though he reserved the right to accept a larger sum if he thought fit, and does not undertake to accept from any one holder the surrender of more than £50,000.

Stock could be surrendered at any branch of the Commonwealth Bank where the stock was registered, and the surrender of Bonds would be accepted at any capital branch of the Bank, or at Townsville or Launceston. Immediately the holder signed a transfer of his Stock to the Treasurer or surrendered his bonds, the Commonwealth Bank would make the payment already indicated.

Dr. Page said that the continued success of the Loan was a matter for general gratification. Already the Conversion Loan amounted to over £40,000,000, and this must be regarded as a most noteworthy achievement in the history of Australian finance.

## SCENIC CANADA.

We have received from Mr. Gordon F. Johnston, General Agent, Sydney, a booklet issued by the Canadian National Railways entitled "Scenic Canada." It contains illustrations of the various districts along the route of the Canadian National Railways, from the Atlantic to the Pacific which lies through a part of the North American continent, and upon which nature has been particularly indulgent in a way that creates much admiration and wonder.

Illustrations of Montreal (the largest and one of the most interesting of Canadian cities), are shown. Its magnificent harbor has on its eight-mile frontage, berth accommodation for 100 ocean-going steamers.

During the run from North Bay to Cochrane the railway traverses the gold and silver mining districts of northern Ontario, which have in 19 years yielded of these two metals a total value of £65, 800, 000.

The route to Vancouver lies in the main along the valleys of the Thompson and Fraser rivers respectively. Vancouver is the largest city in British Columbia, and since the opening of the Panama canal has become one of the leading seaports in the Dominion. Victoria, the capital, is situated at the southern tip of Vancouver Island. It is a pleasing city, possessing many fine homes and beautiful drives, many winter visitors being attracted by its equable climate.

Copies of the booklet which is only briefly described above, may be obtained from Mr. Gordon F. Johnston, General Agent, Passenger Department, 368 George St., Sydney, N.S.W.

Throw overboard useless regretting,
For deeds which you cannot undo,
And learn the great art of forgetting
Old things which embitter the new.
—E. W. Wilcox.

# Manurial Experiments with Citrus Trees

## Valuable Tests in New South Wales.

*W. Le Gay Brereton, Assistant Fruit Expert, and W. B. Stokes, Orchard Inspector.*

EXPERIMENTS to determine (1) whether potash is beneficial to citrus trees on a typical citrus soil, and, if so, whether the muriate or the sulphate is to be preferred; and (2) the relative values of (a) superphosphate and bone-dust as sources of phosphoric acid, and (b) sulphate of ammonia and nitrate of soda as sources of nitrogen were commenced at Mr. W. Halcombe's orchard, at Narara, in 1922. The following progress report is published from the N.S.W. Agricultural Gazette, for the information of growers, who, however, would be unwise to form any definite conclusions from the experiment at this early date.

### The Potash Experiments.

This series consists of 135 trees in nine rows, giving fifteen trees to the row. It is divided into three plots, each plot comprising three rows, or forty-five trees to each plot. Results are taken from the centre row of each plot only, the row on each side receiving the same manure mixture as the centre row and serving as buffer rows to the adjoining plots receiving a different mixture. The soil is of a sandy character, overlying a friable clay subsoil, and is typical of the good hillside orchard soil of the Gosford district. The bed is situated on a gentle slope in one direction only. The rows run up and down the slope, so that all plots have an even proportion of trees on the upper and lower portion of the slope.

The trees (Valencia Late Oranges), were about nine years old and well up to average development at the time of starting the experiment (August, 1922). They would be considered an even lot, but those in plots A are on the whole somewhat smaller than those in plots B and C.

In May, 1923, through a surface drain silting, a heavy rain caused a wash-out, which was more severe in plot B than in plots A and C.

During September, 1924, the upper seven trees of all plots were soiled.

The following applications of manure were made per tree:—

| | lb. |
|---|---|
| Plot A . . . . . | 3 bonedust. |
| | 3 superphosphate. |
| | 2 muriate of potash. |
| Plot B (Control) | 3 bonedust. |
| | 3 superphosphate. |
| Plot C . . . . . | 3 bonedust. |
| | 3 superphosphate. |
| | 2 sulphate of potash. |

These mixtures are low in nitrogen, and if the trees later show want of it a higher percentage will be given to all plots. The manures were applied in August, 1922; March, 1923; September, 1923; April, 1924; and August, 1924. The first results were taken in October, 1923, by picking the fruit from the centre row of each plot; the fruits were machine-sized, and the count of each size from each plot taken from the packed cases. As the centre row of Plot A contained actually only fourteen Orange trees and one Lemon tree, the yields in Plots B and C were also reduced to fourteen, as shown in Table III. The only variation indicated by these results was a weakening of the bed from Plot A towards Plot C, Plot A (muriate of potash), giving the heaviest crop; Plot B (no potash), the next heaviest, and Plot C (sulphate of potash), the lightest crop; and no conclusion could be drawn from these results. No difference could be noticed in the texture of the skin or the quality of the fruit from the various plots.

The 1924 results (taken on 20th October), are shown hereunder. Plot A (muriate of potash), gave the highest count of fruit, Plot C (sulphate of potash), came second, and Plot B (no potash), third. The highest count of fruit may not necessarily indicate the biggest crop—there could be a high count of small fruit—but the packed case can be taken as a fairly accurate standard of measure, and here again Plot A is on top. Plot C comes second and Plot B third.

In Table I. are shown the actual counts of size from 3½ inches to 2 inches in an eighth-inch range, and for purpose of comparison these sizes are divided into three groups. From Table II. it will be seen that of the largest group Plot A has the highest percentage, Plot C the next highest, and Plot B the third; in the centre group C has the highest percentage, A comes second, and B third; and in the smallest group B has the highest percentage, A comes second, and C third. Of Oranges under 2 inches B has highest percentage, C the second highest, and A the third. In other words, both potash plots consistently show more large fruit than the no-potash plot. It must be repeated, however, that these are only one season's results, and final conclusions cannot be drawn from them.

It was thought that perhaps the increase in size was through puffiness or an increase in thickness of skin, but Oranges from the various plots were cut and compared, and no difference could be noted.

Table I.—Showing Counts of the Fruit in the Potash Experiment Plots.

| Plot | 3¾ in. | 3⅛ in. | 3 in. | 2⅞ in. | 2¾ in. | 2⅝ in. | 2½ in. | 2⅜ in. | 2¼ in. | 2⅛ in. | 2 in. | Under 2 in. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | . . | 113 | 200 | 138 | 718 | 724 | 883 | 786 | 330 | 234 | 260 | 17 |
| B | . . | . . | . . | 138 | 2 | 214 | 527 | 1,220 | 726 | 898 | 46 | 178 |
| C | . . | . . | 120 | 276 | 280 | 394 | 1,025 | 1,496 | 249 | 422 | 11 | 70 |

Table II.—Showing Percentages of Fruit of Different Ranges.

| Plot. | Percentage of fruits 3¼ to 2¾ in. | Percentage of fruits 2⅝ to 2⅜ in. | Percentage of fruits 2¼ to 2 in. | Percentage of fruits under 2in. |
|---|---|---|---|---|
| A | 26.5 | 54.3 | 18.8 | .4 |
| B | 3.5 | 49.7 | 42.3 | 4.5 |
| C | 15.6 | 67.1 | 15.7 | 1.6 |

Table III.—Showing Total Counts and Cases per Plot and Tree.

| Plot. | Total count from Fourteen Trees. | Total crop 2in. and over computed in Canadian Cases. | Canadian cases per tree. |
|---|---|---|---|
| A | 4,409 | 25.2 | 1.8 |
| *B | 3,686 | 17.36 | 1.24 |
| *C | 4,053 | 19.22 | 1.37 |

*As explained in the text, there were actually fifteen trees in Plots B and C. Proportionate reduction was made (from 3,949 and 18.6, and from 4,343 and 20.6 respectively) to make the figure comparable with those from the fourteen trees on Plot A.

### The Phosphoric and Nitrogen Experiments.

Plots 1, 2, 3, and 4 were designed to test the effect of phosphoric acid and nitrogen supplied from different sources, and it was therefore necessary to adhere to a fixed percentage of nitrogen, phosphoric acid, and potash per tree. Plots 1 and 2 tested phosphoric acid supplied by superphosphate versus phosphoric acid supplied by bonedust. As bonedust contains an organic nitrogen, nitrogen was supplied to Plot 1 by adding dried blood. Plots 3 and 4 tested nitrogen supplied by sulphate of ammonia versus nitrogen supplied by nitrate of soda; and as the same percentages of nitrogen, phosphoric acid, and potash are preserved in Plots 1, 2, 3, and 4, Plot 1, where the whole of the nitrogen is supplied with dried blood, can be compared with Plots 3 and 4.

This bed of Valencias (about six years old) is not so suitable for a manurial experiment as that in which the potash experiments are located, as the ground slopes in two ways. The trees in Plot 2 are on the average rather weaker than those in No. 1. The trees in No. 3 are on the average about equal to those in No. 1, and those in No. 4 about equal to those in No. 2. During June and July, 1924, all the trees in these plots were heavily soiled. There are ten trees to the row and each plot is composed of three rows. The results are taken only from the centre row of each plot, the other two rows acting as buffers to the other plots.

The following applications of manure were made per tree:—

| | lb. | oz. |
|---|---|---|
| Plot 1—Superphosphate | 2 | 2 |
| Dried blood | 2 | 1 |
| Sulphate of potash | 0 | 11 |
| Plot 2—Bonedust | 1 | 10 |
| Dried blood | 1 | 9 |
| Sulphate of potash | 0 | 11 |
| Plot 3—Superphosphate | 2 | 2 |
| Sulphate of ammonia | 1 | 3 |
| Sulphate of potash | 0 | 11 |
| Plot 4—Superphosphate | 2 | 2 |
| Nitrate of soda | 1 | 9 |
| Sulphate of potash | 0 | 11 |

The applications were made in April, 1923; August, 1923; March, 1924; and August, 1924. The results were obtained in similar manner to those in the potash experiment, and in 1923 no consistent variation was apparent in any direction. The fruit was picked in October, 1924, and the results are shown in Tables IV. to VI. It will be noticed that Plot 1 (superphosphate) gave a higher count than bonedust (Plot 2), also a larger yield in cases. That the trees in Plot 1 were on the average rather stronger must not be forgotten. Both Plots 3 and 4, however, had all their phosphoric acid supplied by superphosphate, and though their nitrogen was supplied as sulphate of ammonia and nitrate of soda respectively, they are to some extent comparable with Plots 1 and 2. The trees in Plot 4, too, were of about the same strength as those in Plot 2, yet the yield of Plot 4 was higher than those of Plot 2, which supports the conclusion suggested by comparison of Plots 1 and 2 as to the superiority of superphosphate over bonedust.

Plots 1, 3, and 4 can be compared from the nitrogen point of view.

Plot 3 (sulphate of ammonia) gave both the highest count of fruit and highest yield in cases, with Plot 1 (dried blood) second, and Plot 4 (nitrate of soda) third.

In fairness to nitrate of soda it should again be pointed out that the trees in Plot 4 are on the average weaker than those in Plot 1, and those in Plot 3 are about equal to those in Plot 1.

The variation referred to in the strength of the trees is one of the difficulties in the successful conduct of manurial trials with fruit trees. Even a comparatively small plot of, say, wheat, oats, or barley will contain a great number of plants, with a correspondingly greater likelihood of the plots containing an equal number of plants of varying inherent cropping or other habits; whereas unless the plots of trees are extremely large—which makes for unwieldiness and increases the risk of soil variation—the number of trees per plot are few, and the probability of such equality between the plots proportionately remote. The owner of the orchard, Mr. Holcombe, is taking individual tree records from the trees in these plots. These records will indicate after a few years the distribution of trees of varying cropping propensities throughout the plots, and it may be possible from these records to devise some fairly precise method of allowance for lack of uniformity in the trees.

The fruit was examined for fineness of skin, etc., by Mr. Senior, of the Gosford District Packing House Ltd. In the potash experiment Mr. Senior awarded the product of Plot A the first place, Plot C second, and Plot B third. In the phosphoric acid and nitrogen experiments, the fruit from Plot 2 was given first place, from Plot 4 second place, Plot 1 third, and Plot 3 fourth.

Tab'e IV.—Showing Counts of Fruit in the Phosphoric Acid and Nitrogen Experiment Plots.

| Plot. | 3¼in. | 3⅛in. | 3in. | 2⅞in. | 2¾in. | 2⅝in. | 2½in. | 2⅜in. | 2¼in. | 2⅛in. | 2in. | Under 2in. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 96 | — | 378 | 552 | 25 | 358 | 12 | 148 | — | — | 3 | 6 |
| 2 | — | 78 | 25 | 276 | 16 | 263 | 33 | 196 | 51 | — | 26 | 4 |
| 3 | — | 139 | 125 | 414 | 280 | 181 | 201 | 330 | 127 | 52 | 52 | 2 |
| 4 | — | 9 | 55 | — | 182 | 331 | 77 | 278 | 215 | 183 | 32 | 89 |

Table V.—Showing Percentages of Fruit of Different Ranges.

| Plot. | Percentage of fruits 3¼ to 2⅜in. | Percentage of fruits 2⅝ to 2⅛in. | Percentage of fruits 2¼ to 2in. | Percentage of fruits under 2 in. |
|---|---|---|---|---|
| 1 | 66.6 | 32.8 | .2 | .4 |
| 2 | 40.8 | 50.8 | 8.0 | .4 |
| 3 | 50.3 | 37.4 | 12.2 | .1 |
| 4 | 17.0 | 47.3 | 29.6 | 6.1 |

Table VI.—Showing Total Counts and Cases per Plot and Tree.

| Plot. | Total count from Ten Trees. | Total Crop 2in. and over computed in Canadian cases. | Canadian cases per tree |
|---|---|---|---|
| 1 | 1,578 | 11.2 | 1.12 |
| 2 | 968 | 6.1 | .61 |
| 3 | 1,903 | 12.1 | 1.21 |
| 4 | 1,451 | 7.4 | .74 |

The Canadian case (measuring 20 x 10 x 11⅛ inches) is that used for a large proportion of the Oranges grown in this State. It is often called the "gin case" when the lid is leather-hinged.

# Fruitgrowing Under Irrigation.

## Murray Valley Orchard and Vineyard Notes for October.

*(By C. G. Savage, Deputy Horticultural Instructor and Manager of Berri Experimental Orchard.*

### Cultivation.

The surface of the soil should be brought down to a fine tilth as early as possible in order to retard surface evaporation of soil moisture. Aim at having a level surface, as rough and ridged land exposes a greater surface to the sun's rays, resulting in a higher loss of soil moisture. The disc harrow is an admirable implement, but it is not ideal as a machine for completing summer cultural operations. On lands where a heavy cover crop or a good growth of weeds has been turned under, the disc harrow does excellent work in breaking down the surface soil and cutting up the green manure; also it can be used to advantage in breaking down the clods where the land has turned up somewhat rough. The disadvantage under our hot hummer conditions is in leaving the soil in a more or less ridged condition. To overcome this defect the orchard or vineyard should be immediately harrowed or lightly scarified, after being disced, to pull down the ridges and level the surface (writes Mr. C. G. Savage in the South Australian Journal of Agriculture).

No effort should be spared to clean the plantations at an early date, remembering that every weed is drawing upon the moisture supply of the tree or vine, and where dense the weeds harbor insect pests, such as Rutherglen fly and cut worms. They also tend to create suitable conditions for the development of fungus diseases.

### Irrigation.

The first irrigation will be given in most of the Murray Valley fruit districts during September. The old adage still holds good, "Minimum of water and the maximum of cultivation." Cultivation must go hand in hand with irrigation, and should follow immediately the land is in a fit state after water has been applied. Definite rules cannot be laid down as to the length of time it will take to irrigate an orchard properly, nor the quantity of water that one should apply, as various conditions demand variations in amount of moisture needed. The nature of the soil is one of the determining factors. A sandy soil will absorb moisture far more readily than a heavy one, consequently one should be very careful not to over water on the light soils. Too much water spells ruination to the plantation, and is one of the main factors in causing seepage troubles. Soils rich in organic matter absorb and retain a greater amount of moisture than lands deficient in humus, consequently the former soils will not require the same amount as the latter, as they will be found in a more or less moist condition when the irrigation commences.

### Citrus Notes.

Most of the Washington Navel Orange and Mandarin crops will be harvested by the end of September. **Pruning may be commenced at once.** Cut away all spent shoots and the brush that is sweeping the ground. Fruit borne on the shoots that are now upon the ground will all be more or less scarred, and of little value next season. The new crop as it develops will bring other limbs towards the ground line, and will replace those removed. Remove crossing branches; thin out the foliage where the trees are dense; exercise care in thinning out the Orange tree to avoid making gaps through which the direct rays of the sun will play upon tender bark of the branches. The **Lemon** tree can with safety be opened out with a more or less open centre without fear of the bark being sun scalded. The **Mandarin** shoots subdivide freely towards the apex, and become more or less bushy and thick; the new shoots can be judiciously thinned out with advantage.

### Manuring.

The applications of artificial fertilisers may be given prior to an irrigation. Superphosphate and bonedust may be given at any period throughout the year without fear of loss. As both these fertilisers do not move far in the soil every endeavour should be made to place them down as deeply as possible in order that the plant roots may operate upon them. Sulphate of ammonia, nitrate of soda, and potassium fertilisers being readily soluble, should only be applied when the plants are growing, otherwise they may be washed below the roots of the trees and vines.

Experiments show that where complete fertilisers are applied, increased crops are gathered, and that in the Murray Valley nitrogenous fertilisers are essential for healthy growth and payable crops.

The following quantities will act as a guide as to the fertilisers that may be expected to give a profitable return both from vines, deciduous and citrus trees, the quantities varying to suit different soils:—Superphosphate, 3 cwts. to 5 cwts. per acre; sulphate of ammonia; 2 cwts. to 3 cwts. per acre; sulphate of potash, ¾ cwt. to 1 cwt. per acre.

The greatest benefit will be derived from these fertilisers if they are applied in small dressings, say, just prior to each irrigation. This practice will make the cost of application somewhat heavy, and probably the operation will clash with other work. Many growers adopt the practice of applying half-quantities in the spring and half early in the new year, with beneficial results.

### Diseases.

The vines should be sprayed as soon as the first few leaves are seen on the new shoots, to prevent the germinating spores of the black spot fungus entering the young tissue. Either Bordeaux or Burgundy mixture may be used.

The first spray for codlin moth will be given in early October. If the paste form of arsenate of lead is used, 3 lbs. should be used in every 50 gallons of water; with the powder 1½ lbs. will be found sufficient. Care and thoroughness is the keynote of success. Do not worry about spraying the leaves; direct the poison on to the fruit. The first application should be given when the petals are falling freely.

### Cincturing the Currant.

The Currant will be cinctured in the middle of the month of October. Clean the rough bark from the stems prior to cincturing. The operation should be carried out when the caps are being freely shed, say, when two-thirds to three-quarters have fallen. On young vines (three years old) the single incision will be found sufficient; with old vines the removal of a strip of bark about one-twelfth of an inch wide is recommended. On old vines the single cut will be satisfactory. Healing of injured tissues is hastened by covering the incisions with a strip of waxed cloth.

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Don't tell your troubles to others; they are looking for an opportunity to tell theirs to you.—George Eliot.

# Cold Storage In Australasia

## FRUITGROWERS' COOL STORES ASSOCIATION.

### Successful Conference at Diamond Creek.

Office-bearers for 1924-25 (re-elected 1925-26):—

President: Mr. R. M. Finlay, Diamond Creek.
Vice-President: Mr. J. Tully, Doncaster West.
Auditor: Mr. J. W. Barrett, Ringwood.
Council Member to Chamber of Agriculture: Mr. J. H. Lang, Harcourt.
Council Members to Victorian Central Fruitgrowers' Association: Mr. P. T. Young, Ringwood; Mr. R. M. Finlay, Diamond Creek.
Secretary and Treasurer: J. G. Aird, Ringwood.

THE Annual Conference of the Fruitgrowers' Cool Stores Association of Victoria was held at Diamond Creek on September 1st. The President (Mr. R. M. Finlay) occupied the chair. Cr. Leach tendered a hearty welcome to the district.

Delegates attended as follows:—

Messrs. J. Stevens, A. J. Harris, F. Moore and C. T. Browning (Blackburn); J. Stevens, T. N. Cuttle, W. Mock and A. R. Fankhauser (Burwood East); H. L. Tomkins, W. White, W. Lipscombe and R. Langley (Croydon); R. M. Finlay, P. Lawrey, and R. Lorimer (Diamond Creek); J. J. Tully, R. E. Petty, E. Daws and J. Sugden (Doncaster Central), G. T. Knee and A. Ireland (Doncaster E.); J. Tully and J. Petty, J. W. Aspinall and T. Sugden (Doncaster W.); J. H. Lang, W. Eagle, Eb. Eagle, A. Frankling, H. M. McLean, A. Gunner (Harcourt); J. M. Watt (Hastings); D. Peck (Mt. Waverley); F. Petty, A. C. Thiele, J. J. Tully, and R. Sutherland (orchardists); W. Jarman, A. Haig, T. Chapman, S. Holland, F. Butler, J. E. Holland (Red Hill); H. Thatcher, J. W. Barrett, P. T. Young, H. Pump, W. Mackinlay and A. J. Tann (Ringwood); T. W. White and H. H. Hawken (Somerville); A. R. Chivers and R. Read (Templestowe); J. D. Grant, F. Stockton, T. H. Houfe (Tyabb); C. Wallace, H. Gosbell, E. Finger, F. J. Byrne, H. Thatcher, A. Powell (Wantirna); Robt. Webb, J. W. Bailey, T. E. Butler (Narre Warren); W. J. Williamson (Portland); T. E. Butler (Pakenham); private stores: J. W. Bailey, W. Lipscombe, and the Secretary, Mr. J. G. Aird.

**Visitors.**—Senator Wilson, Minister for Markets and Migration; Mr. J. Lister, M.H.R.; Mr. W. H. Everard, M.L.A.; Cr. Leach, Heidelberg Shire; Mr. J. M. Ward, Superintendent of Horticulture; Messrs. C. A. Smith, S. H. Hardcastle, Institute of Refrigeration; G. A. Cook, M.Sc., Institute Science and Industry; J. E. Harrison, Department of Agriculture; G. Mock, F. Thomas, A. Lenne, Central Fruitgrowers' Association; Messrs. Fraser and Borwick, Vacuum Oil Company.

Apologies for absence were received from Messrs. R. Mair, W. Johnston, Citrus Association, P. Rossiti, F. H. Burbury, G. Grover, Lew Cole, H. R. Chandler, E. Pritchard, A. F. Thiele.

### Annual Report.

In his annual report, the Secretary (Mr. J. G. Aird) stated that with three new affiliations, viz., Narre Warren, Portland, and Mr. P. Rossiti, the membership totalled 25 stores. No definite results had been obtained from the application to the Minister for Markets regarding the installation of self-recording and long distance thermometers. There was keen competition for the Association's Shield at the 1924 Royal Agricultural Show. More affiliated stores should compete. The Association appreciated the information imparted by Mr. A. J. Smith, M.A. (Cambridge) on his last visit. It was regretted that the Government had not obtained the services of a scientist for continuous study of fruit transport problems. Advertising leaflets would be distributed at the 1925 Royal Show.

In moving the adoption of the report, the President stated that there was a cold storage capacity in Victoria of 1,257,000 cases, and the membership of the Association included 723,500 cases. The Cool Stores Association was the strongest growers' organisation in Victoria.

The financial statement showed a credit balance of £25/2/8. The report and balance-sheet were adopted.

An additional store was admitted to membership, viz., Two Bays Nursery and Orchard Co., Somerville.

**Spraying Oils.**—Strong opposition was expressed in regard to the proposed increase to 35 per cent. Mr. Lenne contended there should be no duty at all, but that growers should receive a bonus for destroying pests. Without a duty spraying oils would be 3d. per gallon cheaper. The Secretary was instructed to continue his representations for preventing the increased duty.

**Income Tax.**—The President reported that the Income Tax Commissioner had demanded the payment of tax on the amount set aside for loan reduction, depreciation, reserve, and sinking fund, these being deemed profits. This had been contested, on the grounds that the cool stores were not profit earning, and did not pay dividends; the expenses of the running of the stores, including sinking funds, etc., were assessed and paid (by instalments) by growers. The Commissioner then sought to levy tax on the profit earned by the cool stores during the war, when meat was stored. This was countered by the argument that the meat was stored as a national service to the loss of the growers, who wanted to store their fruit. Finally, the Commissioner gave way on all points. This instance would serve as a guide to other stores.

A vote of appreciation to the Committee which conducted the proceedings was carried.

**Rating on Unimproved Land.**—Conference protested against the contention of the Commissioner that the expenditure of 10/- per acre on manures increased the potential value, and warranted an increase of 50 per cent in the unimproved value.

**Pears for Canning.**—Mr. J. Tully said there was a good market for canned Pears, but growers, instead of receiving the necessary price of £12 a ton, received last season from £10 to £7 per ton for Williams. In America the canneries paid £17 a

ton. The Keiffer Pear, properly ripened, was a delicious variety for canning. The Government, in fulfilment of its policy, should guarantee the cost of production to the grower.

Mr. A. Lenne (Ardmona) said that canned Pears were profitable, and were carrying unprofitable Peaches and Apricots. Because of fire-blight in U.S.A., Pears were difficult to produce, and Australia had a wonderful opportunity. The fruitgrower should not be a canner, but circumstances were forcing this phase of industry upon him. In addition to the factories in the north, another one was now being erected at Mooroopna. There should be a growers' cannery in the south. America, with its huge population, had a satisfactory local trade, and could dump the surplus canned fruit in London at 7/6 per doz., while our canned fruit figures were worked out under different headings, showing at a glance where costs were average or unduly high. A cordial vote of thanks was tendered to Mr. Barrett.

At the invitation of the Diamond Creek Cool Store, delegates and visitors enjoyed an excellent luncheon at the Parish Hall. The President proposed the loyal toast, which was honored.

Mr. J. H. Lang, in proposing the toast of Parliament, said that fruitgrowers would stand behind the Government in the present crisis. (Hear, hear.) The installation of long distance thermometers was necessary. Shipping companies took possession of the fruit, but disclaimed responsibility. Payment of freight should be made in London, saving exchange. Regarding fruit canning, the standard of living had been set neries, packing sheds, etc. He hoped growers could take over the proposed barrow distribution scheme, and that kerb markets would be extended.. (Applause.)

Senator Wilson, in reply, said that no Government had done more for the primary producers than the present one. The Government was negotiating the matter re self-registering thermometers, but at the present time the shipping crisis prevented anything definite being done. The exchange position was much easier, and he thought arrangements could be made for freights to be paid at the most advantageous place. The Rural Credit Branch of the Commonwealth Bank should be of service to producers.

Regarding markets, the Department of Markets and Migration had been created, consolidating several allied departments and saving costs. Re-



*Delegates and Visitors at the Victorian Fruitgrowers' Cool Stores Conference*

cost 8/9 f.o.b. The Government which collected £38,000,000 in tariffs should provide a bounty to return the producers the cost of production to enable them to compete in the world's markets.

It was resolved, on the motion of Messrs. Tully and Lenne, that "in the opinion of this meeting, growers of canning Pears should get the cost of production, and to ensure this the Government should be approached for a bounty, also that the Secretary be requested to furnish any necessary information."

**Cool Store Working Costs.**—Mr. J. W. Barrett, the Association's auditor, presented a graph showing the relative cost of working each co-operative store on a per case basis. The up fixing a minimum wage, but nothing was said about fixing the cost of production to the producer. He did not believe in running to the Government on every occasion, and believed that the industry would prefer to be left alone if others were not pampered too much.

(A voice): The sugar industry is pampered.

Continuing, Mr. Lang said that the industry appreciated the labors of Mr. Everard, M.L.A. The State laws, however, transferred the authority for the lending of finance from the Treasury to the State Savings Bank with disastrous results to the producers, who were now hampered in the development of cool stores, can-

garding canned fruits, the way was clear for the new season's operations, as a large surplus had recently been sold. Australian canned Pears in color and quality were in a class of their own. Our Peaches were equal to the world's best, but our canned Apricots were inferior to Californian. There was a shortage of canneries in Australia to-day Regarding dried fruits, Sultanas were selling freely at 68/- to 69/- per cwt, but the prices for Currants and Lexias were unsatisfactory.

Mr. Lister, M.H.R., urged growers to use every care in grading and packing.

Mr. W. H. Everard, M.L.A., in a vigorous speech, stressed the necessity for Federal assistance to Pear

### Cold Storage Problems.

Mr. G. A. Cook, M.Sc., Institute of Science and Industry, read a very interesting paper on Research Work (a summary of which is published in this issue) and was tendered a cordial vote of thanks.

Mr. T. N. Cuttle asked, Has there been sufficient evidence collected to warrant running stores at 34 deg. instead of the prevailing temperature of 32 deg. for Apples.

Mr. Lipscombe said he had kept Apples at 34 deg. this season satisfactorily. Pears kept better at 30-32 deg.: a separate chamber was to be preferred.

Mr. H. L. Tompkins reported satisfactory results in storing Apples at 38 deg. to 40 deg.; if such higher temperatures could be relied on, it would greatly reduce costs.

Mr. Wallace said seasonal conditions had much to do with success in cold storage. Last season was particularly favorable. He believed in a standard temperature of 32 deg. for uniform results each season.

Mr. J. H. Lang gave instances of success at the higher temperatures. Each variety needed investigation. The maximum storage "life" was not desired—only good commercial "life."

Interesting information was contributed by Messrs. Holland (Red Hill), McInnes (Diamond Creek), Harrison (Department of Agriculture), Williamson (Portland), and other delegates, including the visiting engineers.

Mr. Sutherland (Orchardists' Store, Doncaster E.) urged special attention to cultural matters to build up sound fruit. (Details published elsewhere in this issue).

The discussion was most interesting and valuable.

### Brown Heart and Its Control.

Mr. J. H. Lang read a paper on Brown Heart and Its Control, being a resume of the reports of the British Food Investigation Board of the Department of Scientific and Industrial Research. (This paper was published in August "F.W."

In answer to a question, several delegates stated it was easily possible to test the density of CO2 with a lighted candle. If the candle went out the concentration of CO2 was too great, and ventilation was imperative.

Mr. Sutherland congratulated Mr. Lang on his able paper, and stated from his reading of the reports some additional information might be appreciated.

* * *

In the year 1922, 39 steamers were engaged carrying 2,046,358 cases of Apples, and 102,941 packages of Pears from Australia to London.

Of the 39 steamers engaged, there were fourteen fitted with the dry air system, and 21 with the direct expansion or coil system. Of the 39 steamers, 14 had no fans for circulating the air, whilst 25 had. Again, 1[illegible] steamers changed the air, whilst 25 did not. Of the 14 steamers that changed the air, only one landed a cargo with excessive damage (overripe); none landed a cargo containing "brown-heart."

Of the 25 steamers that did not change the air 20 were direct expansion or grid boats, out of the 20 there were 12 that landed cargoes with excessive damage, and of that 12 there were 11 cargoes containing "brown-heart." The return shows that the "excessive" damage on these 11 steamers amounts to £210,283. The amount is arrived at by taking the auction sale price, and deducting therefrom the average price per case realised for sound and damaged fruit.

The fruit itself is responsible for the formation of CO2, and simultaneous consumption of oxygen.

Apples produce CO2 twice as fast at 50 deg. F. as at 34 deg. F.

Apples produce CO2 four times as fast at 70 deg. F. as at 34 deg. F.

Apples produce CO2 eight times as fast at 90 deg. F. as at 34 deg. F.

It is therefore clear that the conversion of oxygen into CO2 takes place at a greater rate during the earlier portion of the voyage, while the fruit is being reduced in temperature. If all the oxygen is consumed during the period, the fruit will gradually die of suffocation.

In the process of pre-cooling, the CO2 given off while extracting the heat, is dispersed, and the most dangerous period of storage is over before the fruit reaches the ship's chambers. As only 20 per cent. of the air is oxygen, the remainder natural gas nitrogen.

The Apples consume oxygen equal to their own volume in 10 to 20 days at 34 deg. F., in 5 to 10 days at 50 deg. F., and in 1 to 4 days at 70 deg. F.

Assuming that the volume of Apples was one-third the cubical contents of the hold. Since only 20 per cent. of the air is oxygen, it follows, when the holds are closed down, the volume of the oxygen present was about half that of the Apples, hence if the holds were perfectly airtight, the oxygen would fall to 8 per cent. in 3 to 7 days at 34 deg. F., in 2 to 3 days at 50 deg. F., and 9 to 36 hours at 70 deg. F. If the temperature of the fruit was 66 deg. F. when loaded into the ship's chambers, the danger line would be reached in 1 to 2 days.

Analysis of air taken from a ship's chambers on arrival at Tilbury Docks:

From Chamber No. 1.—18 per cent. CO2. Oxygen not taken; condition of fruit, no "brown-heart."

Chamber No. 2.—38½ per cent. CO2, ½ oxygen. Severe "brown-heart."

Chamber No. 3.—33 per cent. CO2; oxygen not taken; "brown-heart."

Chamber No. 4.—30 per cent. CO2, 2½ oxygen. Severe "brown-heart."

In another case wind sails had to be fitted into the lower holds before the men could enter and commence discharging.

* * *

A cordial vote of thanks was tendered to Mr. Lang.

**Election of Officers.**—The retiring office-bearers—as given above—were re-elected.

### Agricultural Department's Researches.

Mr. J. Harrison, of the Science branch, Department of Agriculture, read a valuable paper dealing with storage temperatures and the conditions necessary for the safe storage of fruit.

This was followed by an animated discussion.

In proposing a vote of thanks, Mr. Tully congratulated the Department in carrying out these experiments, and said that the scientific and practical views, as expressed by Mr. Harrison, spoke well for his future.

### Williams Pear Export.

The failure of the recent shipment of Williams Pears by the s.s. "Surrey" was discussed, delegates expressing the opinion that the temperatures en route were too high. Williams Pears were successfully exported 14 years ago at a temperature of 29-31 deg.

Mr. Tully said he believed any future Pear shipments should be handled by one agent only, and referred appreciatively to the services of Mr. S. J. Perry, who arranged the details for earlier successful Pear shipments.

Mr. J. J. Tully urged the necessity for compulsory pre-cooling of Pears for export.

After discussion, it was finally resolved:—

That this Conference affirms the principle of all Pear shipments being pre-cooled, and that shipping companies be requested to refuse to take unpre-cooled Pears in all exclusive Pear chambers.

After the tea adjournment, Mr. Borwick, Assistant Chief Lubricating Engineer of the Vacuum Oil Co., gave a very interesting talk, illustrated by lantern slides, on the lubrication of engines, and was accorded a hearty vote of thanks.

### Orchard Tax.

Mr. Stockton (Tyabb) said he believed many growers in his district favored the idea of an Orchard Registration Fee, but they feared unsuitable clauses might be inserted.

Mr. Ward (Superintendent of Horticulture) stated that the proposed Orchard Tax Bill was not being proceeded with by the Government, but that a new Bill was being drafted.

The Chairman said that once he had advocated the Orchard Registration Bill, but he was now opposed to it.

### Root Borer.

Mr. J. M. Watt (Hastings) said the root borer was a growing menace, and asked for information to assist in defeating the pest.

Mr. Ward said there was a good deal of information in the Department of Agriculture available to growers on this subject. A parasite had been discovered: if this parasite could be bred in sufficient numbers, the pest might be greatly checked. America sent men all over the world in search of parasites.

After further discussion, it was decided to request the Department of Agriculture to concentrate on research work regarding the root borer.

It was resolved that the meeting place of the next conference be left in the hands of the executive.

A vote of thanks to the President terminated the proceedings.

* * *

On Wednesday, September 2nd, delegates were motored through the district by Diamond Creek friends, the route being through Hurstbridge, Doreen, Nutfield to Yan Yean Reservoir, where the ladies provided refreshments. With everyone in good humor, Mr. J. H. Lang moved a hearty vote of thanks to the ladies, and tendered the thanks of the Association to Diamond Creek friends for their unbounded hospitality. A move was then made for the return journey, which was through Morang, Upper Plenty and Tanck's Corner to Diamond Creek, in time for the afternoon train for Melbourne.

The success of the Conference reflects much credit on the Diamond Creek delegates for their efficient manner in which arrangements were made, and a special word of praise is due to the untiring and courteous Secretary, Mr. J. G. Aird.

## COLD STORAGE OF FRUIT.

The following is an extract from a paper read by Mr. G. A. Cook, M.Sc., B.M.E. (Institute of Science and Industry) at the seventh Annual Conference of the Fruitgrowers' Cool Stores Association of Victoria, held at Diamond Creek on 1st September, 1925.

The paper was confined to certain of the lesser known aspects of the work recently carried out in Australia by the 1923 and 1925 scientific expeditions of the British Food Investigation Board. Part only of the information obtained by these expeditions has been published, and as a result it may be said that the Apple storage disease known as "brown-heart" (due to the suffocation of the fruit by the gases given off in its respiration) is now capable of being entirely obviated. There yet remains for publication the results of the extensive tests given to various types of instruments designed for measuring the temperature, humidity, and gas content of ships' holds. Several quite new and novel types of instruments were used, and, generally speaking, these were designed to give their indications at a distance. In particular an electrical instrument capable of registering in the engine-room the percentage of carbon dioxide gas present in a hold proved fairly satisfactory.

The expeditions and the work carried out by the Board in England have thrown into relief the present world-wide lack of knowledge of many important factors concerning the cold storage of fruit. The Institute of Science and Industry, and the Australian National Research Council are in close touch with the Director of the British Food Board, and a scheme of organisation of research has now been formulated. It is hoped to initiate co-operative research into Australia's special problems connected with the storage and export of foods. Much depends, however, on the extent of the funds that it has been stated are to be made available to the Institute of Science and Industry for the initiation of scientific investigations into problems of national concern.

## APPLES FOR STORING.

### Need for Correct Soil Conditions.

At the Cold Storage Conference, Mr. R. Sutherland, engineer of the Orchardists' Cool Store, Doncaster E., urged growers to pay more attention to scientific cultivation to strengthen the texture of the fruit intended for storing.

* * *

MOST authorities lay it down as a rule that soil generally contains sufficient of the mineral substances except lime, phosphorus and potash, and the gaseous element, nitrogen. It is therefore, only considered necessary to supply those constituents to convert barren into fertile ground, continuing their application as manures to restore to the soil similar proportions of the substances abstracted by the crops. The deficiencies of soil constituents can only be ascertained by analysis, and it is often difficult even then to ascertain what are the ingredients it is essential to apply.

Yet an analysis of soil by a competent authority is a great aid to the cultivator. It expresses the fitness of the soil or otherwise for the profitable growth of fruit, denotes the degree of its probable remunerative employment, indicates the lines on which the after-management as regards manures must be conducted, and does away with the uncertainties and perplexities of having to find out by experiment or empirical methods the soil's capabilities of production and the measure of its suitability for a special crop. Not only is a knowledge of the soil capabilities or deficiencies for the production of crops essential to the general purposes of cultivation, but it becomes more apparent when applied to special objects of culture. All plants take from the soils constituents in the building of their structure, converting inorganic into organic matter. These in nature are for the most part restored, so that soils naturally are not impoverished, but through the accumulation of animal and other organic remains, are increased in fertility.

In cultivation this state of things is reversed. Every crop removed represents so much loss of the soil constituents. In the case of fruit trees the wood takes some, the leaves more, and the fruit most of the mineral substances (except lime), abstracted by the roots.

The amount of potash, soda, magnesia, lime, iron, phosphorus, sulphur, and silica taken off the ground in the shape of fruit from an acre of trees in full crop is very great, and in the course of years, enormous; and as this does not represent the whole that is taken away, we get the key to the decrepit condition of so many orchard trees. An excess of manure is more prolific of wood than

of fruit. To prevent disaster and practise successfully, cultivators must have recourse to the resources of science.

Apples may be taken as illustrative. Wolff, the great authority, gives in his Aschen Analysen, the following constituents of the wood of the Apple:—Potash 12.0, soda 1.6, magnesia 5.7, lime 71.0, phosphorus 4.6, sulphur 2.9, silica 1.8, and chlorine 0.2 per cent.

Those results point to the need of lime phosphates and potash as most desirable and necessary in the cultivation of Apples, and this is well attested in practice. The other elements are, as regards culture, and particularly garden culture, usually given in ordinary manures. Some soils are better suited to the cultivation of fruits than are others, still it is not a question of natural suitability, but of making unsuitable soils favorable to the production of profitable crops by an admixture of ingredients. This is necessary for the successful culture of fruit trees. It is not even a matter of choice of ground with many cultivators. The amateur in choosing a residence, must be guided more by the convenience of location to his business and salubrity of situation than of advantages in soil.

Sometimes this is the best thing that could happen, for soils that are naturally poor and ill-adapted for fruit culture are made artificially better suited thereto than those by nature rich. In many cases what is lost in soil is gained by advantage in climate; so that the anomaly is not infrequent of the profitable cultivation of fruits in an artificial soil, and partial or complete failure where the natural soil is of the best possible, staple but exhausted.

The following are the chief manurial ingredients required by fruit trees:—Lime, Phosphates, Potash, Magnesia, Iron, Soda, Silica, Nitrogen, Nitrate of Soda, Sulphate of Ammonia, Farm-yard Manure.

Phosphates and Potash salts are the chief components of artificials employed in growing fruit. Nitrates of potash and soda are also sometimes used to aid growth. Superphosphate of lime is a great stimulant of roots, phosphoric acid and lime being the main constituents embodied in it, and these, with potash, which is the largest mineral component, enter extensively into the composition of fruit, as shown by the table at foot of page.

Besides the above mineral constituents in the fruit, there are organic compounds derived from the air and soil. Nitrogen is indispensable, but science and practice are agreed in its being the most active stimulant of wood growth and foliage, and have found it, when in excess, to check fruit bearing. When special stimulants for inducing fruitfulness are desired, care should be taken to afford a plentiful supply of the substances shown in the ash analysis. "The only ingredients contained in the ash which there is any need of noting, are the phosphoric acid, potash and lime, for these are the only ones in which the soil is likely to become deficient, and therefore that must be returned to the land to keep up its fertility.

From analysis there would be taken from an acre of land set with Apple trees, 30 feet apart, and yielding 10 bushels of fruit to the tree.—

1st sample made up of green, immature Apples, 6 lbs. phosphoric acid, 37½ lbs. of potash, 4¾ lbs. of lime.

2nd sample composed of large and perfect fruit, 7 lbs. of phosphoric acid, 37 lbs. of potash, and 3½ lbs. of lime.

3rd sample made up of small and imperfectly formed Apples, 7¼ lbs. of phosphoric acid, 43 lbs. of potash, and 7¼ lbs. of lime.

These facts show (1) that an equal weight of small, inferior fruit extracts more fertility from the soil than does the large and superior, while the former is comparatively worthless, the latter distinctly valuable; and (2) the importance of chemical manures, and their early application in order to derive the greatest benefit from them.

Mineral Constituents of Fruit.

| | Potash. | Soda. | Magnesia. | Lime. | Iron. | Phosphoric Acid. | Sulphuric Acid. | Salicic Acid. |
|---|---|---|---|---|---|---|---|---|
| Apple .. .. . | 35.68 | 26.09 | 8.75 | 4.08 | 1.40 | 13.59 | 6.09 | 4.32 |
| Pear .. .. .. | 54.69 | 8.52 | 5.22 | 7.98 | 1.04 | 15.30 | 5.69 | 1.49 |
| Peach .. .. | 74.46 | .. | 6.29 | 2.64 | .58 | 16.02 | .. | .. |
| Plum.. .. .. | 59.21 | .54 | 5.46 | 10.04 | 3.20 | 15.10 | 3.83 | 2.36 |
| Orange .. .. | 38.70 | 7.60 | 6.50 | 23.00 | 1.70 | 14.10 | 2.90 | 5.20 |
| Cherry .. .. | 51.85 | 1.12 | 5.46 | 7.47 | 3.74 | 14.21 | 5.09 | 9.04 |
| Grape .. .. | 63.14 | .40 | 3.97 | 9.05 | .06 | 10.42 | 5.61 | 4.11 |

## New South Wales.

### Batlow.

At the recent annual meeting of the Batlow Cool Stores, Mr. N. H. Case presiding, gratification was expressed at the success of the year's operations: £1,000 had been paid off the overdraft in three years: the running costs were low, and no "scald" was in evidence last season.

The directors' report stated that during the year 31,000 cases of fruit had been stored, viz., Apples, 13,060 cases; Pears, 17,770; Plums, 570; Peaches, 75.

The retiring directors, Messrs. N. H. Case and Smith, were re-elected unopposed.

Authority was given for the erection of three new chambers of 9,000 case space for the 1926 season.

## PERSONAL.

Mr. W. H. Murray, of the Vacuum Oil Co., Melbourne, returned to Victoria early in September, after an interesting trip through U.S.A., Great Britain and the Continent. Mr. Murray speaks highly of the organisation amongst American fruitgrowers, and also appreciates the plant research work being done in England and America. He is preparing a report of his travels, which will be made available to fruitgrowers.

* * *

Mr. Blick, manager of the Coastal Farmers' Co-operative Society, whose offices are at the Municipal Fruit Markets, Sydney, underwent an operation last month for tonsilitis of the throat. We are pleased to state Mr. Blick has sufficiently recovered to take a short respite from his business in the country, to enable him to regain his normal condition of health.

* * *

Mr. W. O. Johannson, general secretary Sanitarium Health Food Company, whose headquarters are at Wahroonga, Sydney, paid a visit to Brisbane during last month. Mr. Johannson called at our Sydney office before making the trip.

## ROYAL AGRICULTURAL SHOW.

All records of exhibits and attendances at the Royal Agricultural Show at Melbourne were broken in the 1925 event. Huge crowds attended from the country and city, and were delighted by the splendid exhibits.

In the fruit section cool-stored Apples made a fine show, as also did the Citrus and other fruits. Further reference to these exhibits, including the attractive Government exhibits, will be published next issue.

# Victoria.

## News and Notes.

### Narre Warren.

Mr. R. E. Haysey, Narre Warren North, reports under date, Sept. 17th:

The principal varieties of Apples grown here are Jonathan (main crop), Rome, Yates, with sprinkling of older known varieties in old plantations, which are gradually being reworked to better paying sorts.

Pears are getting in growers' black books. Main varieties:—Williams, Bosc, Keiffer, and Josephine, also odd lots of W. Cole (the only variety which is paying me), Clairgeau, etc.

After the repeated failure of the Keiffer market, growers are seriously considering reworking them. This Pear was planted as a canner (now replaced by Williams), is the best all-round cropper, needs no spraying for Black Spot, is easily grown, so some still hesitate to re-work.

The busy spring season is now well upon us. On most of blocks here ploughing has been completed, but on account of the severe abnormal frosts this season, there has been very little growth to plow in for green manure. Frosts, though, have helped materially in subduing that growers' (worst of all) pest, Woolly Aphis, so with a late application of oil, which no growers here appear to be leaving out, control of Woolly Aphis should be an easier job than usual.

Pumps are now busy fighting Black Spot on Pears, as early blooming varieties are in blossom; mid. blooming are at the important pink stage. Spot was more or less severe here in all orchards, according to thoroughness of the spraying last season.

**Coming Season's Prospects.**

Some heavy crops were harvested here last season, and prices, taken all through (Yates still in store), have been the best average for a number of seasons.

Jonathan and Yates are showing a very promising bloom; Romes, Crowns (very heavy last year) on the lighter side; others light to medium. Soft fruits now in heavy bloom (not largely grown). They will be a bit affected by the very cold southerly showers now being experienced.

**Summing up everything, prospects are for a medium crop.**

**The Cool Store.**

Shareholders in the local Cool Store are very pleased with its first year's work. The fruit has kept well, and costs are low for a first year of operation.

It is said our store is one of the cheapest built in the State, which is largely due to the close and earnest attention of the directors. A large number of enquiries have been received from other districts, apparently desiring to erect their own cool stores similarly.

### Wangaratta.

Mr. J. P. Larkings, Secretary, Wangaratta Citrus Growers' Association, reports under date, September 21st:—

**MARGETSON**
**& CO. LTD.**

**Fruit Importers & Salesmen**

30 James St. and James St. Warehouses,
11 Neal St.,
COVENT GARDEN
LONDON, W.C.
and at
Jamaica House,
9 & 10 Botolph Lane, London, E.C.
& 56-58 Stanley St., Liverpool

Sales by PRIVATE TREATY.
Prompt Returns & Settlements
Tel. Add.—FRUTERO, LONDON.
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*Head Office—Covent Garden Market, London, W.C.*

Bankers:
LLOYD'S BANK LIMITED
Law Courts Branch, Strand, London, W.C.

**Shipping Nos.**
**431 and 432**

The picking and marketing of Citrus fruits have begun here, and a heavy crop of these fruits has to be disposed of. Emperor Mandarins are a little bit on the small side this year, the best packs being 240 and 280 to the case.

The local Citrus Association made use of the Agricultural Show (which was attended by 10,000 people) to advance sales. A fine display of fruit was staged, and attractive posters were shown with the slogans of Eat More Citrus Fruits and Citrus Fruits for Health, etc.

Cultivation has begun, and the turning under of cover crops of Peas is in progress, also manuring with artificial manures is in full swing.

Considerable damage was done to Citrus crops here this year by spraying with Red Oil.

Mr. B. Krone (Dept. of Agriculture) gave a packing demonstration of Citrus fruits during the month, which was appreciated by growers.

In the deciduous orchards, spraying is in progress for leaf curl and other fungus diseases. During the past season Black Spot was troublesome in some of the Apple orchards of the district, but growers are using every effort this season to keep this disease in check.

### Ardmona.

Messrs. Young Bros., of Ardmona, on the 12th September write:—

Prospects for the coming season are good, as most trees are showing well, with the exception of early Peaches and Apricots, which will be light. W.B.C. Pears and Canning Peaches represent the main crops.

Spraying for fungoid and insect pests has been carried out under favourable weather conditions, and if the weather continues dry, we should have less trouble with diseases than during the past few years.

The erection of the cannery at Mooroopna is progressing well, and when completed will afford an outlet for a large quantity of fruit.

### Doncaster.

Mr. E. I. Lawford, Doncaster, Vic., writes (22/9/25):—

The principal fruits now grown in Doncaster are Pears and Peaches, less important fruits being Apples, Plums, and Cherries, while increasing acreages of Lemons are coming into bearing and being planted each year.

On the whole, the past winter has been a good one, with more frosts than for some seasons past, though one or two good heavy spring showers are still needed to fill some of the dams.

Both Pear and Peach trees look exceptionally well, and are blossoming well, Apples, too, are showing well, while Lemons are carrying heavy spring crops.

Many growers are taking extra precautions against Black Spot by an extra Bordeaux spraying earlier than usual, intending to follow on again later at the usual time.

The early blossoming Pears are now well advanced for an application of Bordeaux or Lime-Sulphur, and spring ploughing is being put in hand.

## PUBLICITY HELPS THE FRUIT INDUSTRY.

### Important Work by Victorian Railways Department.

We publish on this page illustrations showing some of the posters and advertising work conducted by the Victorian Railway Department with the object of assisting the fruitgrowing industry. In this work, the Railway Department has won the unqualified gratitude of the industry, and the appreciation of the public.

The publicity work of the Railway Department is not only that of displaying posters on railway stations throughout the State, but also in the issuing of attractive booklets which tells a convincing story in regard to the value of fruit on health. These booklets also contain useful recipes. Thus the people are being told not simply to eat more fruit, but the reason for so doing. Abiding good is done when the publicity is of educational character. The general public is now becoming familiar with the word "vitamine," an element of which a few years ago nothing was known. Foods which nourish the body must possess vitamines—in other words, the essential of life, and there is no better way of absorbing these vital elements than in the eating of ripe, fresh fruits.

The Railways Department is to be congratulated on its publicity work as above outlined, and also for the helpfulness at all times displayed in regard to assisting other sections of fruitgrowers and primary producers generally.

In addition, the Railways Department also organised the National Resources Train, as well as the Better Farming Train, the latter enterprise being conducted in conjunction with the Agricultural and Educational Departments.

The Chairman of the Commission, Mr. Harold W. Clapp, has won the confidence of the Victorian public by his able administration, in which he is assisted by his fellow Commissioners and the staff of the Railway Department as a whole.







Decorated Citrus Fruit Stall on the main concourse at Flinders-street Station, Melbourne.

# Red Scale and Fusicladium Control in Pear Orchards.

## Experiments in South Africa.

The following is a summary of spray tests in the control of red scale and fusicladium carried out during the 1923-24 fruit season, and repeated during the 1924-25 fruit season by the Entomologist (states the South African Journal of Agriculture for July, 1925):—

Home-made light engine-oil or lubricating-oil emulsion, diluted at the rate of one measure in fifteen measures of water, applied in late winter, but before buds opened, satisfactorily controlled severe infestations of red scale on Duchesse and Kieffer Pears. It was more effective than Scalicide diluted at the same rate, and much more effective than Harbas, diluted at the rate of one measure in twenty measures of water, as recommended on the label. Furthermore, the home-made emulsion used was more than twice as cheap as the proprietary miscible oils.

**A Stock Emulsion.**—The home-made oil emulsion tested is similar to the one now used for pernicious scale control in some parts of the United States. Directions for making it are as follows:—

| | |
|---|---|
| Standard Oil No. 8 (or any lubricating oil of similar viscosity and specific gravity) .. .. .. .. .. | 1 gallon. |
| Water .. .. .. .. .. .. .. | ½ gallon. |
| H. & S. soft soap (or a potash fish-oil soap) .. .. | 1 lb. |

The oil, water, and soap are placed in a tank and heated until the contents come to a boil. A few minutes after the boiling begins, when the brown scum commences to disappear, the mixture should be removed from the fire, and all of it should be immediately vigorously pumped from the receptacle by means of a hand or bucket pump into another receptacle, and then pumped back again into the original receptacle. It is necessary to quickly pass the mixture twice through the pump before cooling to satisfactorily emulsify.

Before pumping, the cap and disc of the nozzle should be removed. The emulsified mixture is then placed in the spray tank and water slowly added to it, while it is being stirred, until fifteen gallons are added. The mixture should not be allowed to cool before it is passed twice through the bucket pump. Merely stirring the mixture will not produce a satisfactory emulsion.

Any fruitgrower may easily make this emulsion, and it is recommended as a cheap and very effective late dormant spray when red scale is severe.

One application of "Capex" lime-sulphur, diluted 1-10 with calcium caseinate spreader, applied in late winter just before the buds opened, did not control red scale satisfactorily except on Beurre Hardy trees, which blossomed late and were not severely infested.

One application of lime-sulphur, with or without spreader, diluted 1-10, applied just before the buds began to open, followed by another spray of lime-sulphur, diluted 1-75, plus spreader, applied when the blossom buds were pink, did not control red scale satisfactorily on Duchesse and Kieffer Pears.

One application of lime-sulphur, diluted 1-10, applied in late winter before the buds opened, and one spray of lime-sulphur of 1-50 or 1-60 dilution, with or without spreader, applied when blossom buds were pink, followed by two combination sprays of bordeaux and lead arsenate at the usual strength, applied for the first two codlin sprays, satisfactorily controlled red scale and fusicladium on Louise Bonne Pears, and fusicladium (but not red scale so well), on Forelle Pears.

Lime-sulphur, diluted 1-10 applied in late winter, followed by one application of lime-sulphur diluted 1-50 or 1-60, plus spreader, when buds were pink, and two applications of lime-sulphur diluted 1-80, plus spreader, with lead arsenate, during the first two codlin sprays, controlled well both red scale and fusicladium on Louise Bonne, and fusicladium, but not red scale, satisfactorily on Forelle. Very little burning of foliage resulted.

The unusually late rains and prolonged cool weather probably accounted for the less generally satisfactory control of red scale on the earlier blossoming varieties, e.g. Kieffer and Forelle, which required an earlier application of the dormant spray than the others.

The continued increase in infestation by Pear mealy-bug, may result in the near future in the necessary substitution of two or more cheap home-made lubricating oil sprays for the one dormant lime-sulphur spray. Extensive tests of various oil mixtures in the control of both red scale and Pear mealy-bug will be made during the coming season.

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### CODLIN IN APRICOTS.

The following extracts taken from a detailed report by Dr. Pettey, the first part of which is published in this issue of the Journal, should be of interest to Apricot growers. The report covers the work of the 1924-25 fruit season.

Codlin moth is a serious pest of Apricots in many Wellington orchards where practically no Pear, Apple, or Quince orchards exist, and is gradually spreading. Kelsey and Wickson Plums are also badly attacked.

The earliest codlin eggs began to hatch about a month after Royal Apricots, and five to six weeks after the earliest blossoming varieties dropped their petals. The life-cycle of the earliest first brood insects occupied two and a half months. Over 90 per cent. of the first generation larvae which survive the summer heat wintered over and did not develop into moths. Consequently, it may be assumed that there is a very small second generation, and that there is practically a one-generation strain of codlin moth in Wellington. This explains why codlin is able to maintain itself year after year in Apricot orchards.

Spraying thoroughly once, during the first week of October, with 1 lb. of acid lead arsenate powder in 40 gallons of lime water, with or without spreader, reduced codlin infestation from 23 per cent in unsprayed Royals of the Malan orchard, and 6.6 per cent. in the Taylor orchard to about 2½ per cent. and 2 per cent. respectively, without causing burning of importance. Spraying once, these mixtures, using 40 gallons of water in place of lime water, and spraying twice, with or without lime water, and with or without spreader in the mixture, resulted in better control, but caused serious burning to both fruit and foliage. New Castles were less susceptible to burning than Royals. The efficiency of one spray on this variety was considerably lessened this season by cracking of the skin, caused by wet weather. Nevertheless, one spray reduced the infestation from 22 per cent. in the unsprayed, to 8 per cent. in the sprayed trees.

# New South Wales.

## MURRUMBIDGEE IRRIGATION AREAS.

**Leeton, 18/9/1925.**

**Leeton Cannery.**—Orders are freely coming in and the anticipations regarding the clearing out of last season's stock appear to be well founded. The last train (the fourth), to complete the large overseas order mentioned in my last month's contribution, leaves on Wednesday next. On that date, to celebrate the event, there is to be a demonstration at the Leeton Railway Station to be followed by a luncheon at the cannery dining rooms.

The calico signs, on the trucks containing the consignment, had various letterings to advertise the Leeton Cannery enterprise. The wording of the advertisements were well thought out, and attracted the attention of many persons as the trains passed through the various country stations en route to Sydney.

The usual tenders have been received from the various growers in the district by the cannery for next season's fruit and up to date they are:—

3,000 tons of **Apricots.**
2,200 tons of **Elberta Peaches.**
6,000 tons of **Cling Peaches.**
2,000 tons of Sundry fruits embracing **Plums, Pears,** &c.

**Empire Press Delegation.**—The visit of the delegation to the areas was of course quite an event. The magnitude and variety of equipment at the Leeton cannery were a revelation to them.

The delegates were highly pleased also with their inspection of Penfolds Wineries on the Griffith sector, and were charmed with the panoramic views from the Griffith "Look Out." The result of this tour by persons of such public importance will doubtless result in additional "preference" and substantial imigration after the home papers have teemed with illustrations of Australia's potentialities.

**Rice.**—The cannery (Leeton), has handed me a sample of Rice produced on the Area, and on putting it to the saucepan test I am convinced I have not tasted a better type. Those settlers who put down Rice last season at the Leeton end are doing so again, but on larger areas. Yenda and Griffith are following suit. So, after all, the much abused claypan country on these areas is of use, for it is on this kind of country the Rice will be sown.

**The Fruit Packers.**—The seamen's strike has materially interfered with the fruit packers' volume of business. Attwood & Sons showed me a gratifying report from New Zealand where they have been sending fairly large consignments of Lemons, Washington Navels and other Oranges, previous to the strike.

**Fruitgrowers' Prospects.**—Taking early signs as a guide, there is likely to be a much larger crop of **Apricots** and **Elberta Peaches** than last season. The flowering of them is good, and as there is a growing recognition of the necessity of proper spraying the outlook for these varieties is good. Aphis and Curl Leaf are not likely to be so apparent as last season.

A matter concerning the fruitgrowers just now is the vital one of the disposal of their Apricots and Elberta Peaches. The Irrigation Commission appears only inclined to take about

**1,000 tons of Apricots,**

out of three thousand tons estimated growers' production, and the Commission may only receive say three hundred tons of Elbertas, although the growers' estimate of their production is over two thousand tons.

The Irrigation Commission appears favourable to a pool of Canning Apricots and Elbertas along with dried fruits. Under this pool system the Commission would pay into a central fund say £10 for Canned Apricots and Elbertas, and 4.66d. per lb. for the dried article delivered to certain depots. A further figure would be paid later on for the dried article, as the sales of dried fruit eventuated. It would be found impossible to fix the actual dried fruit price until the size of the crop is known.

H. M.
WADE
& CO.
*Fruit Merchants*
Prompt Advices of Sales
— CHEQUES WEEKLY —
471 FLINDERS LANE
MELBOURNE
And WESTERN MARKET.

The settlers on the Leeton end of the Area do not take kindly to the drying proposition at all, and many of them have already openly declared that they will not dry process their fruit. Unless the Irrigation Commission takes initiative and practical steps to deal with this phase of the fruitgrowers' difficulty there is going to be confusion and loss to both the factory and growers. The difficulty has not arisen through the settlers—it is a factory difficulty, and it is up to the Commission, not the settlers, to straighten up the position. If the Commission asks to be excused in the matter on account of its failure to appreciate the increased output of fruit through natural tree development, then the settler can only say "its your mistake, right it."

If the factory business requires more room and further equipment to place it on a proper working footing, then why delay? Of course it may also be claimed that the export prices for canned Apricots and freestone Peaches are not a payable proposition. As far as the export and local markets are concerned the contention is pure supposition. The N.S.W. Government has never yet taken up the matter of marketing of the cannery goods in a proper practical way, so that it could claim to know the exact pulse of the market as far as Leeton Cannery products were concerned. Publicity campaigning and sales organisation will obtain the proper pulse of the market.

The talk about "knowing the markets" is so much hot air, in the absence of these tests. The fruitgrower, it must be remembered, has uprooted thousands of fruit trees in order to conform with the requirements of the cannery as regards varieties, and a strong moral responsibility is on the Irrigation Commission of seeing that the settler is honourably dealt with, even if by such means the Government should be the loser. The coming season is fast approaching, and as a consequence, delay in the solution of the problem is most dangerous.

## Gosford Citrus Show.

Citrus fruit of exceptional quality was exhibited at the Gosford Show on August 23rd.

Mr. W. E. Kirkness (President) eulogised the co-operative packing-house system; the orchard registration fee, when made operative, would assist in the more effective organization of growers.

The packing-house championship competition for the Central Citrus Association's Challenge Cup attracted seven entries, and was won by Central Mangrove; while Griffith and Hills District, which ranked second and third respectively in points, were disqualified for (in the judges' opinion) having contravened the condition that the fruit must not be polished.

For the Isaac Chapman cup (2 cases of Oranges taken from markets) the results were:—First, Griffith (94½ and 87); second, Gosford (92 and 88); third, Central Mangrove (78 and 95). Somersby won in the district collection of Citrus staged in pyramid form, with Galston and Wyee, second and third respectively.

The numerous competitors in the other sections are deserving of praise on the high quality of fruit exhibited.

'Phone Central 8479

F. W. Vear

*Fruit Importer and Exporter*

COMMISSION AGENT

49 WILLIAM ST., MELBOURNE, VIC.

**Solicits consignments of APPLES, ORANGES, BANANAS, PINES and all other fruits.**

**Account sales with cheque daily.**

### Kurrajong.

The Kurrajong Packing Shed anticipates packing over 20,000 cases of Citrus this season, and this, in the opinion of Mr. W. S. Arnold, would not include one-quarter of the district's output.

A vigorous campaign is to be conducted to kill pests "to the last red scale." Prejudices have been overcome, and growers now favor fumigation.

**Dicky Rice** spoils as much fruit as red scale, but does not damage the trees to the same extent. The Entomologist of the Agricultural Department, and the manager of the Kurrajong Soldier Settlement, will make monthly investigations into the life history of the Dicky Rice weevil. Many specifics are being tried, and it is hoped to decide on a good commercial remedy by the end of the season—after 12 month's trial.

**A district fruit fly eradication campaign** has also started, traps being set now to catch the female fly. Harvey lure is very successful.

Our **manuring** has largely been applied to leguminous crops, and haulms plowed in, but a five years' experiment on one block applying manure twice a year will be recorded in detail.

## ARSENICAL BURNING OF PEAR FOLIAGE.

### South African Tests.

F. W. Pettey, Entomologist, and D. C. Crawford, Chemist, Elsenburg School of Agriculture (Journal of Agriculture, South Africa, July 1925), reports as follows concerning the causes of arsenical burning of foliage, which has been severe during the 1925 fruit season in many Pear orchards of the Western Districts of the Cape Province:—

"As a result of a complaint from a fruit grower, of Pear trees being seriously burned by lead arsenate sprays, an inspection of eleven large Pear orchards was made, and samples of lead arsenate were collected from the fruit growers concerned. Considerable foliage injury was found in varying degrees of intensity in all orchards visited. All lead arsenate used was of an acid nature.

Results of the investigation showed that the burning could not be attributed to any particular brand of lead arsenate. The burning was apparently least where the soil was deepest and the moisture best conserved, and trees suffering from drought were evidently less resistant to foliage injury from spraying than trees well supplied with moisture.

The analysis of the three brands of lead arsenate used in the orchards concerned led to the discovery that the arsenate of one manufacturer, owing to the inclusion of an added substance, assumed to be beneficial, showed more soluble arsenic present than allowed by the insecticide regulations. The manufacturer concerned has immediately taken steps to rectify the trouble. The investigation has led to the surprising discovery that **lime when added to an acid lead arsenate, renders soluble a certain amount of insoluble lead arsenate.**

A certain brand of acid lead arsenate showed, on analysis, .07 per cent. water soluble arsenic. After adding to the lead arsenate 10 per cent. calcium caseinate, which was made up of a considerable amount of lime, the water soluble arsenic increased from .07 per cent. to 1.9 per cent."

# Western Australia.

### State Fruit Advisory Board Winds Up.

At a meeting of the Western Australian State Fruit Advisory Board, held on August 27th, Mr. Owen Sparks presided. There were also present Messrs. Skinner, Sharp, Simper, Becher, Schmidt, Convoy, Lantzke, and Wickens.

**Citrus Organization.**—It was decided that no further action be taken at present regarding the proposed visit of Mr. Parkes, of South Australia.

**Cessation of Board.**—The Chairman reported that a deputation had consulted with Mr. Troy, Minister for Agriculture, who had stated the Board must in future finance itself; it was proposed to introduce legislation giving growers power to nominate their own Board and to make a levy on growers.

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Victorian Agent: H. M. Wade & Co., 471 Flinders Lane, Melb.

After discussion it was decided—**That the Board cease to function at this meeting.**

Keen appreciation was expressed of the services of Mr. G. W. Wickens, Government Horticultural Officer, who had acted as Secretary to the Board.

### DONNYBROOK.

Mr. Gus. Sharp, of Donnybrook, W.A., writes (21/9/25):—Stone fruits bloomed freely. The winter was mild; the rainfall is about half the normal precipitation; there were many frosts. **Woolly Aphis** is not much in evidence this season, chiefly due to the work of the **parasitic wasp**, which has been freely distributed during the past two years and which appears to be effectively controlling the pest.

The probable effect of **overseas' shipping strike** on coming season's export is being freely discussed here. There appears to be no end to the pests with which the primary producer has to contend.



# THE "Sunraysed" Courier



**COMMONWEALTH DRIED FRUITS CONTROL BOARD.**

**Commercial Representatives:**
A. F. Bell, E. S. Whitehead.

**Government Nominee:**
W. C. F. Thomas (Chairman).

**Growers' Representatives:**
J. J. S. Scouler, Red Cliffs, Vic.
H. D. Howie, Renmark, S. Aust.
A. L. Johnston, Mildura, Vic.
A. Yeates, Millendon, W.A.
Secretary—R. Marx.

**VICTORIAN DRIED FRUITS BOARD.**

**Commercial Representative:**
J. M. Balfour (Chairman).

**Government Nominee:**
E. Meeking.

**Growers' Representatives:**
Jas. Milne, Red Cliffs.
E. T. Henderson, Mildura.
A. Lochhead, Irymple.
Secretary—A. D. Brown.

**SOUTH AUSTRALIAN DRIED FRUITS BOARD.**

**Commercial Representaaives:**
L. N. Salter (Chairman).

**Government Nominee:**
G. A. W. Pope.

**Growers' Representatives:**
H. D. Howie, Renmark.
H. G. Evans, Renmark.
H. Kay, McLaren Vale.

**Secretary:**
W. N. Twiss.

**AUSTRALIAN DRIED FRUITS ASSOCIATION.**

**Board of Management.**

H. D. Howie, Renmark.
T. C. Rawlings, Mildura.
J. B. Murdoch, Waikerie.
J. Gent, Nyah.
G. Kitchen-Kerr, Red Cliffs.
General Secretary—W. N. Sumner.
South Australian Secretary—T. Stan. Oldham.

**Manager for United Kingdom:**
W. P. Caro.

## DRIED FRUITS TRIBUNAL.

### Industry's Problems to be Investigated.

Following upon the urgent representations of deputations of growers, and the request of other interested bodies, the Prime Minister has moved in the direction of establishing a dried fruits' tribunal.

Recently the Prime Minister wrote to the South Australian and Victorian Governments, asking their co-operation in the appointment of a tribunal to investigate the many problems confronting the industry.

The Victorian Cabinet, upon consideration of the matter, decided to appoint a member to represent Victoria upon this Board.

The two other members of the tribunal will consist of representatives of the Federal Government and the South Australian Government.

Many vital problems that confront the industry at the present time will be investigated with a view to arriving at probable solutions.

Amongst other matters that require thorough investigation are freights, the costs of production which, by themselves, cover a very wide field for enquiry, and the various financial aspects of the industry.

One of the biggest problems is wrapped up in the wide distribution of the various packing units engaged in the processing of the Australian pack of dried fruits.

A closer co-ordination of the packing and processing arrangements will go a long way towards solving the problem of widely varying samples of fruit, and would result in a higher grading standard, and possibly reductions in packing charges.

The co-operative purchase of the whole of the industry's packing requirements, boxes, paper, wire, nails, etc., would probably tend to cheapen the actual packing costs which at present vary from £5/10/- in large sheds, to about £9 in some small sheds.

## Adelaide's Dried Fruit Week.

### S.A. Organisations Co-operate.

Adelaide is having a big dried fruit campaign with the object of influencing consumers there to "eat more" of every variety of dried fruit. The campaign is organised by the South Australian Dried Fruits Board, in conjunction with the Dried Fruits Traders' Association and the Australian Dried Fruits' Association. It commenced on September 28th, running for one week, until October 3rd, and the splendid response of the grocers has ensured its complete success.

Two hundred Adelaide grocers applied for official recognition, stating their intention to co-operate in every way. This entitled them to pamphlets and recipe books for free distribution, and any other assistance the organisations concerned could give them.

The principal publicity feature of the "week" is the combined simultaneous display of dried fruits in all these grocers' windows.

This method always has the effect of stimulating sales of the goods displayed, but the effect is also felt long after the display or "week" is over.

It has been suggested that possibly the Victorian Board, in conjunction with the A.D.F.A., could run a similar combined display in Melbourne. There can be no doubt about its being a success, and it will help largely to avoid a possible carry-over of Australian quotas.

## DRIED FRUITS. SALES IN LONDON.

In a cable to the Chairman of the Commonwealth Dried Fruits Control Board (Mr. W. C. F. Thomas) the London Agency stated that the following sales of dried fruits have been reported during the period from the 18th to the 24th September, 1925:—Sultanas, 25,385 boxes (634 tons), at an average price of £69/17/- per ton. Currants, 2,899 boxes (72 tons), at an average price of £34/9/6 per ton.

Lexias, 3,920 boxes (98 tons), at an average price of £38/15/6 per ton. Inclusive of the foregoing, the total sales recorded with the London Agency of the Board since the opening of the 1925 season are as follows:—Sultanas, 381,607 boxes, equivalent to 9,549 tons, at an average price of £68 per ton. Currants, 75,496 boxes, equivalent to 1,887 tons, at an average price of £38/5/6 per ton. Lexias, 29,183 boxes, equivalent to 730 tons, at an average price of £43/13/- per ton.

## SHORTAGE IN DRIED FRUIT PREDICTED.

From available statistics prepared by Mr. M. J. Newhouse, Manager of the North Pacific Co-operative Prune Association of Portland, Ore., and forwarded by the Coastal Farmers' Society, Sydney, a total production of 438, 500 tons of dried fruits in the United States is in sight in 1925. In detail he estimates the following yields this year, compared with the tonnage last season:—

| | Tons. 1924. | 1925. |
|---|---|---|
| Apricots .. .. .. | 12,000 | 18,000 |
| California Prunes | 130,000 | 125,000 |
| Oregon Prunes .. | 30,000 | 12,500 |
| Raisins .. .. .. .. | 175,000 | 250,000 |
| Peaches .. .. .. | 20,000 | 28,000 |
| Pears .. .. .. .. | 1,500 | 5,000 |
| Total .. .. .. | 368,500 | 438,500 |

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**Liverpool and the Continent**
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& CO.
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LONDON, S.E. 1.
AND HOBART, TASMANIA
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"This shows an increase of 70,000 tons over last season but it is found mostly in Raisins," says Mr. Newhouse. "Rumors of mildew may cut this increase. Oregon Prunes are definitely less than one-half of last year and the regular June drop is at present causing further reductions. Boxnia reports a good crop, but France is again short. Recent reports there indicate 6,000 tons out of a normal of 12,000 to 14,000 tons. An element to be considered is carry-over. With the possible exception of California every Prune producing country will be cleaned up by the time new crop is ready. We are unable to estimate just what tonnage California will have but it will be small compared with the millions of pounds of surplus 1923 crop that every Prune country threw on the market to interfere with the 1924 crop. Oregon alone a year ago was struggling with from 15,000,000 to 20,000,000 pounds of 1923 crop. Canners here all report short packs, and prices of canned foods are mounting. Altogether the dried fruit situation has a decidedly firm undertone."

### Nyah.

A correspondent at Nyah reports under date, 13th September:—

Approximately 2,600 tons of dried fruits were processed by the five Nyah packing sheds during the past season, of which fully two-thirds were Sultanas, the balance being Currants and Lexias.

The London market for Sultanas is much better this season, but prices realised for Currants and Lexias will not nearly return cost of production to growers. Several settlers experimented with the cold dip, and sales of this fruit in London have been satisfactory, prices being several shillings per cwt. above the average 3-Crown hot dipped fruit.

Owing to the prevalence of Black Spot during the spring of 1924, the acid and iron swab has been thoroughly applied throughout the vine areas.

Many complaints are heard regarding the prices charged by the packing sheds at Nyah as compared with Mildura and other districts. The charges at Nyah vary from £7 to £7/10/- per ton (placed on trucks), and it is alleged that the actual cost (including interest and depreciation) on plant is approximately £5 per ton. If it be so, it seem very unfair to growers at the present crisis in the dried fruits industry, that packers should be making £2 and over per ton clear profit, while the producer, in many instances, is not receiving his cost of production.

The citrus crop, except in a few cases, has been light, the last of the Navels will be packed this month.

Prices on the Melbourne market for Oranges have not been so good, owing to the concentration of supplies from other States.

### A Good Eddication.

Mrs. Wiggins: I suppose you find your daughter very much improved by her two years' stay at college?

Mrs. 'Iggins: Oh, yes. Mary is a carniverous reader now, and she frequently impoverishes music. But she ain't a bit stuck up, she's unanimous to everybody, and she never keeps a caller waitin' for her to dress; she just runs in, nom de plume, and you know that makes one feel so comfortable!

## FUNGOUS DISEASES OF FRUIT TREES.

### Valuable New Book.

An exceedingly interesting new book, entitled "The Fungous Diseases of Fruit Trees and Their Remedial Treatment," has been published under the authority of the New Zealand Fruitgrowers' Federation Ltd. The writer is Mr. G. Cunningham, B.Sc., Mycologist, Department of Agriculture, Wellington, the spray formulae having been compiled in collaboration with the Director and Officers of the Horticultural Division of the Department of Agriculture.

The book is well illustrated, and the information published is of very great value to Australian as well as New Zealand fruitgrowers. The book is the outcome of five years' continued study (both in the field and in the laboratory) of fungous diseases attacking commercial orchards.

This book should be in the library of every commercial fruitgrower. The price is 16/- post free in Australia, from the Australian distributors, The Fruit World Pty. Ltd., 9 Queen-street, Melbourne.

**SYDNEY:**
Fruit Merchants Commission Agents
**S. & M. Greenberg**
No. 1 Store
Fruit Markets, Sydney
Also at Melbourne Markets
Tasmanian Shipping No. 161.
Victorian Shipping No. 42.
**PROMPT RETURNS**

The question for each man to settle is not what he would do if he had the means, time, influence and educational advantages, but what he will do with the things he has.—Hamilton Wright Mabie.

**Raspberries, Loganberries & Light-colored Cherries**
Fruit Received through Christmas and New Year Holidays
C. M. BROOKE & SONS
73 Whiteman St., South Melbourne, Vic.

# Queensland.

A conference of Queensland fruitgrowers was held at Brisbane on August 27th. Mr. J. J. Thomas was elected to preside.

The balance-sheet of the Committee of Direction was read, and after criticism and congratulation, was adopted.

Mr. W. Ranger, in reply to a question, stated that the accounts for each section were kept separate, and revealed the following credits:—Banana section, £5,864; Pineapples, £353; deciduous, £437; other fruits, £730. The citrus section showed a debit of £577, and citrus growers were asked to levy themselves 1d. per case to meet this. Instead of distributing the profits, it was better to build up a reserve fund for developing new markets and for advertising.


**TASMANIA**

We are the Leading Australian Firm of FRESH FRUIT EXPORTERS, JAM MANUFACTURERS (IXL Brand), FRUIT CANNERS, HOP FACTORS (owning the largest cool stores for this purpose in the Commonwealth).
Supplies of Corrugated Strawboard, Genuine Sulphite Paper, Nails and best Packing Materials available at all times.
Sole Distributing Agents for the Southern Tasmanian Associated Manufacturers of Evaporated (dried) Apples.

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**Ridley, Houlding & CO.,**
**Large Receivers of Australian Fruits.**
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**Apples, Pears, &c.,**
Best market prices and prompt account sales returned.
Correspondence invited.
Representative in Victoria
THE
International Fruit & Mercantile Co.,
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MURDOCH BROS., Hobart


Of the Pineapple growers some spoke in favor of the Committee's policy and some against. It was finally decided, on the motion of Messrs. Smith and Wise, "that the Pineapple section appreciated the good work done by the Committee of Direction."

### Banana Section.

In the discussion regarding Bananas considerable criticism was levelled at the Committee's policy. It was decided to take a ballot as follows:—

1.—Are you in favor of limitation of agents.

2.—Are you in favor of limitation of agents with others added to the list, such to be nominated by the Association, and placed on the list by the sectional group committee.

3.—Are you in favor of the open agent system.

### Growers at Bowen.

Strenuous opposition to the "coercive and domineering" methods of the Committee of Direction was voiced by Mr. J. Maltby on behalf of growers at Bowen: he claimed that if left alone Bowen growers could manage the production, transport and marketing of their produce to their own satisfaction, and without interfering in any way with other growers throughout the State.

### Citrus Growers.

After a discussion of citrus problems, it was decided to call a conference of citrus growers.

Citrus problems were discussed. Mr. Richards (Howard) said that the establishment by the Committee of Direction of a selling floor at Rockhampton without consulting the growers was a mistake.

It was decided to call a conference of citrus growers.

### Power to Recall.

It was decided to place on the agenda paper of the sectional group committees, for submission to local associations, the matter of an amendment to the Marketing Act giving growers the power to recall members during their term of office.

## Organization in Citrus Industry Needed.

Mr. J. R. Morris, The Palms, Mapleton, Queensland, writes under date Sept. 21:—

Very little work is being done at present except getting the Orange crop to market. The marketing of early varieties is about finished, and growers are now beginning to market the Valencia Lates. Generally speaking, the Citrus crop is fairly light this season.

The Orange trees are now in full bloom, and considering the light crop of the present season, give promise of a heavy crop for next season.

The market for Oranges at present is very jumpy, a difference of three or four shillings per case in price occurring in a few days—the reason being that as soon as prices recover, and fairly paying prices obtain, large quantities are forwarded from New South Wales, and a lot of the fruit is of very inferior quality. The result is of course a slump in prices, N.S.W. Oranges selling as low as five shillings per case.


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16, 17, 20 RUSSELL ST.
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PROMPT RETURNS AND SETTLEMENTS.
Cash advanced to cover freight and overcharges, etc.
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MELBOURNE, HOBART, NEW ZEALAND and WESTERN AUSTRALIA.
BANKERS:
National Provincial Bank Ltd., Long Acre, London. Barclay's Bank, Henrietta Street, Covent Garden.


The call is urgent for proper organization, as by reports from the southern States large areas of Citrus are being planted.

Are any steps being taken in the south to warn those people of the position ahead?

**Toowoomba** (8/9/25).

In about a dozen orchards around the foot of the main Range, 80 miles west of Brisbane, Oranges and Lemons have been plentiful but of small size, especially on older trees. Some of these orchards are on undulating land,

some on the banks of creeks and some on the plain. None of them are irrigated and some of those on the plain have suffered much owing to severe droughts (writes Mr. Wm. Leslie, Instructor in Fruit Culture, Toowoomba, Q.).

The abundance of **Lemons** and the very sluggish market have caused more interest in curing and storage, and the Government Fruit Department is experimenting to ascertain a good method of curing and storage to suit local conditions.

Of pests on **citrus trees** in this district white wax and red scale are about equally prevalent. The washing soda solution with a dash of caustic in it is considered best for the former and persistent oil spray or cyaniding for the latter. The difficulty is to get growers to be persistent in spraying, and the cyaniding is too costly in initial outlay.

At Ravensbourne, a hilly district with much rich scrub soil, situated between the Crow's Nest line and the Esk-Yarraman Branch there are about another dozen orchards of from 2 to 12 acres, mostly of young citrus trees. At one of the largest, 200 trees of the new Dunning's Navel should begin bearing next year. A few older trees of this variety bore this year—a small crop. It is hoped shy-bearing will not characterise some trees of this as of other Navels.

This grower has constructed a very useful **grading machine**, of original design, which sorts out Oranges and Lemons well, and this has rendered perfect packing possible.

Persistent spraying for white-wax scale is necessary in these parts. This pest is abundant on wild bushes by the roadsides and in the scrubs.

At Toowoomba, mostly on eastern or north-eastern slopes near the crest of the main Range, Early Apricots and Peaches are grown. They begin to ripen about the middle of November or earlier in some seasons, and generally command a good price as other fruits are then scarce.

These earlier sorts also generally escape the attacks of the first flights of **fruit-fly**. On the 18th of October last year fruit-flies (Chaetodacus Tryoni), were abundant amongst Lemons which had been allowed to hang late in an orchard at Rangeville near Toowoomba. At this time also the species was observed copulating whilst on the wing. Many were trapped in Harvey's lure.

This lot of flies was probably the precursor of the pests for the season in this district. Although they swarmed in this orchard they did not appear at other orchards in the district where lures were exposed. A few odd fruit-flies were seen in other parts. It is supposed that Chaetodacus Tryoni winters in the scrubs—in warm situations under the Range, i.e. towards the east or north-east. They appear to migrate in swarms like bees at the beginning of the season.

Measures of control are difficult to enforce under present conditions. It is found that the householder with about a dozen trees in his garden, of which there are about 5,000 on the City Council list, is the one to give harbour to the fly, and this necessitates much inspection to effect proper control. The destruction of old or abandoned trees, of which there were many, is being continued under department orders and persuasion.

In the Maranoa and districts adjoining the main Western line as far west as Charleville on the Warrego, very fine citrus fruits are grown. Their flavour is as good as any, and the skin, especially of Oranges and Lemons, excels in fineness any such fruits grown in coastal areas.

In one orchard near Roma, about 45 acres are under the finest varieties of Mandarins and sweet Oranges, and an irrigation system of two-inch piping is laid throughout. At this place as well as some others in Western Queensland, **Red Scale** is the arch-enemy of the citrus grower, and cyaniding has been adopted as a means of control by a few. A few small orchards near the banks of the Warrego use the river water for irrigation, and it is here that the most superb fruit is produced. The Oranges have a beautiful bloom and would compare favourably with the finest Californian fruit reaching Covent Garden Market, London.

Gerald Da Costa

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3, 4 and 5, The Arcade, Borough Market, London, S.E.1.
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## THE ESSSENCE MANUFACTURING INDUSTRY.

### Fruitgrowers Urge Better Protection.

General disappointment has been felt that in the new Tariff no assistance has been given to the essence manufacturing industry in Australia. As pointed out in our August issue, essence manufacturing, if properly developed, provides scope for the disposal of considerable quantities of fruit.

As the Tariff now exists, however, there is no protecton given to the industry, and consequently practically all the essences used in the confectionery, aerated water, and biscuit baking factories, are imported from overseas.

Representatives of the essence manufacturers placed the situation before the last meeting of the Central Fruitgrowers'Association, and members were impressed with the advisability of interesting themselves in the matter. It was unanimously resolved that a committee be appointed to assist the essence manufacturers in obtaining some encouragement from the authorities. It certainly seems a remarkable position that large quantities of essences should be imported from overseas when we have fruit equal to any in the world that could be used freely for their manufacture here, were there adequate protection.

Fruitgrowers should take an interest in this matter, realising that the more opportunities there are for the disposal of fruit, the better it is for them, and it would not be out of place were they to write the Federal member for their district asking him to look into the question of the Tariff duty on essences, and see that it receives attention at the hands of the Minister for Customs.

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# THE "LIGHTNING"

**The Grader which cannot be superseded**
**Simplest - Strongest - Most Efficient**




**"LIGHTNING" FRUIT GRADER—Model 6A.**
Note Ample Packing Space.
**Grades into 6 Sizes—NO BRUISING.**

**MODEL 6** } DESIGNED SPECIALLY FOR THE
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**An unsolicited appreciation from one who has proved its worth:—**

"I am very pleased with the Grader. It has already saved its cost in wages, and I would not like now to revert to the old style of packing. You are at liberty to use my name if you care to, though I am only a small grower.

(Sgd.) A. QUIGGAN.

Shepparton, 31/1/25.

**Hundreds of cases of Apples graded through the "Lightning" Fruit Graders are now being taken out of cool store without a blemish.**

**ASK ANY OWNER.**

**Buy the Small Machine, which will grade ALL your fruits: —Pears, Apples, Peaches, Apricots, Plums, Lemons, etc.**

**PRICES JUST RIGHT.**

**Catalog with all the latest Models free on request.**

## "Lightning" Fruit Grader Co.

**109 CROMWELL STREET, COLLINGWOOD, VIC.**

**Cable & Telegraphic Address: "Lightning," Melbourne**


## Tasmania.

**(By Our Correspondent.)**

FRUITGROWERS are now busily engaged in applying the necessary sprays to safeguard the crops. The weather, although not entirely adverse to efficient operation, has, to a certain extent, militated against successful application of fungicides, being showery with southerly winds. Some fine intervals have been experienced, of which the careful grower has taken full advantage, particularly in effecting control measures against Black Spot.

Tasmanian growers are generally alive to the consequences of neglect in this respect, and from the commencement of growth have applied the different fungicides to prevent infection. At the same time it is astonishing how many will push on with cultivation and other operations allowing the important periods of spray application to pass. In such instances the treatment is generally carried out **after infection,** whereas **the surest line of defence is prevention** and such work should take precedence over all other operations.

**Fruit Prospects.**

Although too early to forecast the probable crops, it is satisfactory to know that a great improvement is showing in the general health and condition of the orchards. This has been largely brought about by the satisfactory prices that were experienced last season, allowing the performance of long-deferred improvements, such as drainage, manuring, etc.

The overseas market prospects look distinctly good. Advices that are to hand indicate that the American crops will be much below normal, and very little fruit from this source should come into competition with Australian fruit upon these markets. Buyers are already operating in the principal centres, and prices offered are much in advance of previous years at this period.

**Apple and Pear Varieties.**

It seems that at last a concerted attempt is being made to eliminate the unsuitable and unprofitable varieties that a number of the older growers have still retained.

"Reworking" is much in evidence, the popular choice of conversion being such varieties as Tasma, Sturmer, and Jonathan, with a sprinkling of Delicious and Tasman's Pride.

The latter kind is coming much into favor owing to the reception it is receiving upon interstate markets. It is a good colored Apple with a good flavor, and has the advantages of vigorous growth, freedom from disease, and regular cropping.

**Australian Fruit Council.**

The long-deferred meeting of this body took place during mid-September. It would have been difficult to have chosen a more inconvenient date from the growers' viewpoint, as this is right in the middle of the spraying season. Tasmanian growers are generally appreciative of the good work that has been performed in respect to the Apple export trade.

**The amendment recommended to the export regulations will be the final link in securing uniformity in the branding of cases and grading of fruit for both interstate and overseas export.**

This is a great achievement, and will considerably simplify the inspection, packing, and marketing of fruit, the only difference in the requirements being that fruit intended for overseas export will require the addition of the brand **Australia.**

**Export Control Bill.**

All representatives of the Fresh Fruits Section of the Council seem unanimous that the time is not yet opportune for legislation such as has been adopted by other primary industries to control the marketing of products overseas to be applied to the fresh fruit trade. Whilst the plea of insufficiently advanced organisation

was put forward to place such a measure on an effective basis, it was patent that the Council considered that fresh fruits come into a different category, in that such have to be sold shortly after arrival, and cannot be handled as effectively as butter, meat, etc.

**Orchard Inspection.**

The spread of the "Currant borer" throughout the small fruit districts has at last brought the question of efficient orchard inspection before the growers of the State. The present system of Municipal and Fruit Board control, besides being generally unsatisfactory, is also most uneconomic. A suggestion has been put forward by the State Fruit Expert, Mr. P. H. Thomas, for the centralisation of such work in the Department. This would allow for the appointment of qualified instructors in each district who would carry out inspectional work, conduct classes in packing instruction, demonstration, spraying plots, etc., and be available to advise and assist the orchardist in the different cultural problems with which he may be confronted.

HAMBURG
(GERMANY).
Ph. Astheimer
And Sohn,
Fruit Brokers . .
and Auctioneers
(GERMANY)
Established 1863.
Largest receivers of Australian, Tasmanian, and American APPLES.
Foreign Apples a Speciality.

**Dept. of Agriculture.**

Tasmanian primary producers are generally looking forward to the visit of Dr. Cameron, the Victorian Director of Agriculture, to investigate and advise as to the more efficient organisation of the Tasmanian Dept. There is no doubt that the problems confronting the economic development of the State may be to a large extent solved by more attention being directed towards the improvement of existing methods of culture and production in the established primary industries.

The necessity of thorough organisation and direction is becoming more apparent every year, and a properly equipped staff of officers would materially assist in bringing the industries into a better plane to meet the growing competition upon the world's markets. This cannot be effected without additional expenditure, and although the State finances may be strained in the performance, it is patent that such improvements must be introduced.

There are two policies, viz.:—"Saving a sixpence and letting things look after themselves," or "Spending the sixpence with a view to getting a shilling returned."

There is only one choice, and if the former be adopted, the need of considering the latter may not be necessary after a few years.

**Hydro-Electric Development.**

The Hydro-Electric Department is carrying out an extensive propaganda throughout the State to bring the service more prominently before the public.

The power has now been extended to the channel and Cygnet districts, and when the line in course of construction to Huonville and Franklin is completed the principal fruit centres will be able to avail themselves of the electric service for lighting and running the different fruit processing plants, etc.

## NORTHERN TASMANIA (WEST TAMAR).

**(By Our Correspondent.)**

Apples and Pears are chiefly grown on the Tamar, and if weather conditions are favorable everything points to a bumper crop. For the last two years crops have been light, and the trees, having rested, are now prepared with a good supply of plump fruit spurs; also, growers in general are taking far more care with their sprayings.

The meetings held under the auspices of the Tamar Farmers' and Fruitgrowers' Association are gaining in favor; it is due to these meetings that growers are taking more pains to combat Black Spot; and probably they are spraying for the first time at the correct period and with the most effective spray.

Growers generally are applying a late dormant or green tip spray with Bordeaux, and are applying a second dose between open cluster and the pink, and in most cases will apply Lime of Sulphur 1—100, mixed with Arsenate of Lead, at the Calyx stage. This will also help to keep the Looper caterpillar under control. In some orchards this pest did a good deal of damage last year. Ploughing is well advanced.

CHERRIES
Growers of black Cherries are asked to communic te with us.
ALFRED LAWRENCE & CO. PTY. LTD.
Fruit Essence Manufacturers,
527 Collins Street, Melb.

Most growers have placed their orders for cases—price about 10d., same as last season. These should be cheaper. Pine cases in a year or so will come into serious competition with local timber unless the price is reduced. Users of pine cases have very little waste and no trouble in cutting down to size (as has to be done with hardwood, or give about 5 per cent. of Apples away).

Now English returns are to hand in the North, the season can be set down as one of the most satisfactory for years—several growers averaging about 17/- per case (gross) for the season, although there were some who received very poor returns on two of the vessels. Several shippers to Germany suffered heavy losses, due to not getting fruit away to Hamburg on first available steamer.

T. STOTT & SONS
Fruit Merchants
Established 1882
A Trial Consignment solicited from Growers in all States.
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Melbourne

Northern growers could very well do with a good season; several growers must be tired of putting their hands in their pockets for upkeep. It is reported that America will not have many Apples for export to England, and also that the English crop is unsatisfactory, so a good local crop this year (providing the shipping strike is settled) would give a filip to industry in the North.

### Woodbridge.

A correspondent writes under date, Sept. 22nd:—

Fruitgrowers in this district have had a hard time the last two seasons, especially the 1924 season, many growers picking less than half an ordinary crop. But the 1925 season turned out better, averaging about a two-thirds crop, with the exception of a few orchards which produced a full crop.

The better prices this season pulled the business together a little. It is the opinion of some growers that the wet spring and summer have been mainly the cause of falling off of crops, especially where the heavy clay sub-soils are, the fibrous roots, which are the fruit producers, have quite disappeared from some trees, leaving only the thick running roots.

Black Spot has been very much in evidence the last two seasons. It has been impossible to cope with it, the wet seasons being so favourable for it. The red mite is a little troublesome here of late, travelling from one orchard to another.

There has been very little planting done in the district the last two seasons, only small additions in a few orchards, growers thinking it not wise to increase the business.

## FRUIT BOTTLING.

### The Way to Assist in Relieving Gluts.

A remarkably simple and inexpensive system has been evolved by which fruitgrowers and householders generally can preserve fruits. By purchasing the ripe fruit and bottling it, the pantry shelves can be kept stored all the year round with these delicious healthful fruit foods.

The bottling outfit supplied by Messrs. Fowlers Pty. Ltd., Burwood-road, Hawthorn, Vic., is a great boon. Fruitgrowers would do well to encourage the larger use of these bottling outfits, for it means that wherever installed, the householders concerned becomes a larger buyer of fruits because of the simplicity with which the fruits can be preserved. Thus, instead of a housewife being a one-case buyer, she automatically becomes (by having a Fowler's outfit) a six-case buyer.

Full information and pamphlets on this subject are obtainable from Messrs. Fowlers' Pty. Ltd., Burwood-road, Hawthorn, Victoria.

## South Australia.

Mr. E. Naughton, General Secretary of the South Australian Fruitgrowers and Market Gardeners' Association, reports under date, September 19th:—

**Fruit Crop Prospects.**—Most kinds of soft fruits are showing well for a good crop. The buds were not sufficiently advanced to be seriously affected by the recent rough weather. During the past week the fruitgrowing districts benefited by a fall of from 2 to 5 inches of rain.

In view of a heavy Plum crop, an effort will be made to **export 10,000 trays** to England. Experiments have been conducted for three seasons, and about eight varieties have proved to be good shippers. Thirty varieties were sent in the experimental shipments.

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A SPECIALTY
Sale Room "Fruchthof"
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Best market values and most favorable conditions
Cash advances made if desired

**Citrus Fruits.**—A large quantity of Oranges remain to be marketed. The export trade was restricted through the strike. About 2,200 cases of one and one-third bushels from the Adelaide Plains were shipped to England, 500 cases of which were shipped by the Citrus Growers' Association, and landed in excellent condition. Prices are not indicated.

A further shipment of 300 cases was sent by the s.s. "Jervis Bay." Owing to the strike, these were packed a week before being shipped. I personally inspected the shipping, and can say the fruit was carefully handled, but would recommend shippers to use cases of stronger timber, as the timber generally used will not stand being walked upon during loading and unloading.

The flimsy cases, in my opinion, account in some measure for the wasty condition of the fruit on landing. I also noticed that the spaces between the boards on the sides of many cases were too wide and the Oranges were being pinched. I recommend that the timber in sides, top and bottom should be not less than ½ an inch in thickness, and not more than ½ an inch spaces.

### Murray Valley.

Mr. J. Aird, of Moorook, South Australia, reports under date, September 19th:—

The Moorook Irrigation Area, until 30th June last, comprised 1,045 acres irrigable, of which 928 acres were irrigated. This area has now been reduced by 353 acres, owing to certain areas on the Soldiers' Settlement having been abandoned as unsuitable for vines and lucerne. The abandoned area was planted mostly with Doradillos and Lucerne, leaving only 47 acres of Doradillos on the remaining area, and in view of this small acreage of spirit Grapes, it was was found necessary to close the Moorook winery and distillery, as no other varieties of Grapes suitable for wine or spirit—apart from Gordos—are grown in the district.

Consequent upon the closing of the distillery, growers found it necessary either to

**graft over their Doradillo**

vines to other varieties, or grub them out and replant. The latter has been done in most cases, Sultanas, Figs, Apricots, Pears, and citrus being the main varieties planted.

The area now under irrigation totals 613 acres planted, approximately as follows:—76 acres citrus, 102 acres mixed trees, 153 acres Currants, 144 acres Sultanas, 102 acres Gordos, 22 acres Malagas, and 14 acres of Lucerne.

During the 1924-25 season, 44 tons (approximately) of dried Apricots, Peaches, Nectarines and Pears, together with 416 tons of Sultanas, Currants and Lexias were despatched to agents from this district, while 462 tons of Doradillo Grapes, and 26 tons of dried fruits were treated at the Moorook distillery.

The bulk of the Citrus crop has already been forwarded to the Adelaide and Melbourne markets, and it is expected that the total pack for the season will be in the vicinity of 2,500 cases.

Read the . .
GARDEN LOVER
The Brightest
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The total rainfall for the year amounted to 13.12 inches, which compares more than favourably with that for other years. Weather conditions were, on the whole, normal during the drying season, excepting during the early part of February when two inches of rain fell, which did considerable damage to the Currant crop. The remainder of the drying season was satisfactory.

All fruits this season have been of a fair average sample, excepting Currants, which, owing to damage by rain, have been below the standard, being bad in colour, and light in weight. Nothing was done in the way of treating Grape fruits with the "cold dip," but in a few cases, settlers sulphured Sultanas after dipping with varied results. All trees and vines have been practically free from diseases.

Spraying was carried out generally for Peach Aphis, Curl Leaf, and Codlin Moth, and, in a few cases, settlers sprayed several times as a preventative of Downey Mildew.

The Dried Fruit Moth was much more in evidence this season than previously.

A fair standard has been maintained in working orchards, and speaking generally, the care and cultivation of same have been fairly satisfactory, although in some cases orchards have been neglected.

More attention should be paid to the care of drying plants, and to the drying of fruits, and there is still room for improvement in the methods of irrigation and cultivation.

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At this early stage, it is not possible to forecast the season's prospects. Peaches and Apricots are now flowering fairly well, but with the strong winds and showery conditions prevailing, it is hard to say what the setting will be. Vines are not yet in leaf.

### Norton's Summit.

Mr. C. W. Giles, of Norton's Summit, S.A., writing under date, 12th September, states:—The prospects of the coming fruit season are favorable, and if the weather continues to keep fine and warm as during the past week, I think, judging by the buds on the trees, we may expect a good setting of fruit. Of course, it is early yet, and rough weather would make all the difference. Given a nice warm spring, we shall not be troubled with the Black Spot as we have during the last few years, which not only spoils the fruit, but makes a great difference in the health of the trees.

The principal fruits grown around this district are Apples, Pears, Plums and Cherries. The latter have suffered very much the last two or three years with the ravages of the Cherry slug, said to come from Melbourne with cases of fruit imported. The only cure for this (known as yet) is arsenate of lead, and if put on full strength, and at the proper time, settles the slug for the time being. If, however, the season continues dry, a second brood will appear. During the last two years the Cherries have been affected by a black aphis, which is very different from what I have seen on Peach and Apricot trees. It is black and sticky, and no spray can touch it, as the leaves curl up and the spray cannot get underneath. I think this was the result of wet seasons.

September is the busiest month for gardeners, as this is the time for spraying and cultural operations which cannot all be done earlier. Owing to the present dry season, the growers have had every opportunity to turn over the soil, much of which is done by hard labor, and considering labor conditions, is very expensive. I have never seen the grass so short for this time of the year, which points to a dry season.

The Pears in this district have been affected by blight on the roots quite different from the American Blight on Apples. This destroys the small fruit roots, making the trees die back. I do not know of a cure as yet except to grub them out. We grubbed out a large number this season, but the ones left in seem to look much better than they did last year, both in fruit and wood.

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## AUSTRALIAN FRUIT ABROAD.

### Marketing in England and Europe.

(By A. T. Booth.)

Writing to the "Fruit World" from London, Mr. A. T. Booth, Secretary of the Mount Barker (W.A.) Cool Stores, who visited England and Europe during the last fruit export season, forwards an interesting report—a preliminary general statement.

Mr. Booth states that he saw every important shipment throughout the season, either unloaded for in the various markets, visiting Hull twice, Liverpool and Hamburg once. Some 50 ships carried Australian fruit in a generally satisfactory condition, showing a distinct endeavour on the part of the shipping companies to serve the industry. Walking on cases, and thus damaging the fruit should be stopped. Many Pears arrived wasty, some wrong varieties were sent, and unsuitable cases were used. Special ships' chambers were needed for Pears.

The season was a really wonderful one, in which the shortage of American Apples was a big factor. Apart from the first two or three boats, our Apples were particularly free from Bitter Pit. Prices held well through the season, but fell at the end, owing (1) to the heavy supplies of soft fruit from England and the Continent (hot dry summer): even new season's green Apples were on the market by July 15th, and Peaches, Apricots, Plums arrived from Italy —being placed there in refrigerated trucks, which were untouched until unloaded the day before the sale at Covent Garden.

(2) Extra large (late) supplies from Australia and New Zealand: the last week in June was one of the heaviest of the season, 222,000 cases arriving, of which 192,000 were from Tasmania.

(3) The large quantities of inferior fruit (particularly from Tasmania).

The Wembley Exhibition, states Mr. Booth, helped to distribute a large quantity of Australian fruit. The opening prices of Apples (3d. to 6d. each) were afterwards reduced by Mr. Lee Neil to 2d. and 4d. each, which price, according to market value and allowing for waste, was fair.

More organisation and supervision in Australia were urgently needed. One shipment contained Apples packed in cases of three different shapes and sizes, Pears in six different sized cases; the branding was irregular. Fruit from other countries came in standard cases, with uniform branding.

Congestion in London was regrettable. The speed of the vessels varied this season from 29 to 56 days. Immature fruit shipped early arrived at the same time or after mature fruit shipped three weeks later. In these matters a Board with authority could do a lot of good. New Zealand, South Africa, and Canada had orchardists combined together with their direct representative in London, serving the industry as a whole.

## APPRECIATION.

**Renmark, S.A. (24/8/25).**

I wish to acknowledge my appreciation of the valuable information contained in the "Fruit World" each month, to fruitgrowers.

(Signed) J.A.G.

The best and only cure for worry is to live an active, interested, vigorous, cheerful life, with plenty of interests outside of your daily work; and in other people as well as yourself, and with full recognition of the gospel of play. Keep up your interests, your work, and your hobbies, and you will seldom worry, and will never realise that you're old—until you're dead.—Woods Hutchinson.

Let us be of good cheer, remembering that the misfortunes hardest to bear are those which never come.—Lowell.

## AUSTRALIAN FRUIT COUNCIL.

### Meeting at Melbourne.

THE fifth meeting of the Australian Fruit Council was held at Melbourne on Sept. 15th to 17th. Mr. J. W. Bailey (V.) presided. Delegates and officials attended from all the Australian States.

Senator Wilson, Minister for Migration and Markets, in opening the proceedings, said that if growers asked for a Fresh Fruit Export Control Board the Government would consider framing the necessary legislation. If the Australian Fruit Council had any justification for its existence its maintenance should be provided for out of taxes levied on fruitgrowers.

Sub-committees were appointed to report on fresh, dried, canned, and Citrus fruit matters. The sub-committee met, and subsequently presented their reports to the full conference.

Resolutions were adopted opposing fresh fruit export control; urging scientific investigations into pest control and fruit transport conditions; supporting Tasmania in their "brown-heart" action against shipping companies; that the export grading regulations be amended, providing that Apples marked 2⅛in. be that size or greater, but less than 2⅜ (and so on through all the sizes), that in the "plain" grade may include Apples each showing slight black spot (not exceeding half-an-inch diameter); that a sub-committee be appointed to select certain oversea selling agents.

**Canned Fruit.**—That growers should be represented on any Canned Fruit Control Board that might be constituted; that prices should be £10 per ton for Apricots and Peaches and £12 per ton for such fruit intended for export. Conference urged a reduction of duty in New Zealand on Australian canned fruit and jam; that representatives of the Sugar industry be asked to meet fruitgrowers regarding a reduction in the price of sugar; that Mr. W. J. Foster represent the growers of canning fruits in further negotiations.

**Citrus Fruits.**—That standards be fixed for export fruit, and that a Commonwealth standard of maturity for Oranges be fixed; that the Federal Government continue the system of insurance to recoup Citrus-growers out-of-pocket expenses on exports; that the duty on Lemons be increased 100 per cent., and that a duty be placed on imported peel in brine.

**Dried Fruits.**—That the number of packing sheds be reduced; that the Governments should test the export markets for Prunes; that the export regulations be amended by altering the designation of Muscats to "Muscat Lexias," and Walthams to "Walthams Lexias"; that the duty on Dates be increased by at least 2d. per lb.; that the Victorian Railways Commissioners be thanked for reducing the freight on dried fruits.

Conference further resolved:—The Australian Fruit Council be continued with reduced membership; that the Government should conduct a thorough investigation into the Australian fruit industry; that the various States be urged to complete the fruit census, as was done in New South Wales; that legislation be introduced to ensure pure fruit juices being used in drinks and confectionery; that calcium cyanide be admitted free of duty.

Appreciation was expressed to the Government for its assistance in many ways. A resolution of cordial appreciation of the services of Mr. W. J. Allen (N.S.W.) was adopted.

Mr. H. G. Colombie, representing the Federation of Fruitbrokers, attended, and urged growers to send all their fruit to the registered brokers for sale by auction; there were 36 such brokers in Great Britain and Ireland, those who issued catalogues before and after sales. Mr. Colombie severely criticised a report issued by Mr. A. J. Arnot, of N.S.W., During the Conference telegrams were received from fruitgrowers in many places in Victoria objecting to the proposed fresh fruit export "control."

[We much regret the condensing of this report. Further details next issue.—Editor.]

## "FRUIT WORLD" APPRECIATED.

A grower writes: "Was very keenly interested in the article last month, "Why Do Blossoms Fail to Set." This is something that needs a lot of study so that we may be able to regulate our crops.



NEW LATE APPLE;

"Elsie Grant"

YATES-ROKEWOOD HYBRID

Better than either parent. Better size, better color, fine appearance, good quality, very solid; habit of Yates, but does not bunch; keeps longer out of cold store without wilting than any other Apple; very little aphis.

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## INSTITUTE OF SCIENCE AND INDUSTRY.

### Fruit Diseases and Pests.

### Important Experiments are being Conducted.

The following is a summarised statement of the Institute's present (September, 1925) activities in regard to investigations relating to fruit diseases and pests:—

1. **Bunchy Top in Bananas.**—The work is being undertaken in co-operation with the State Governments of Queensland and New South Wales, and a laboratory has been established at Tweed Heads, N.S.W. A horticulturist was sent to study reputed disease-resistant stocks in Fiji, and he has brought back some of these for acclimitization. The latter is being done under strict quarantine. In addition the nature of the disease itself and the method of its distribution is being studied at Tweed Heads. This is being undertaken by trained investigators, under the direction of Professor Goddard, of Queensland University. The results obtained to date indicate that the disease is probably of the nature of a virus transmitted by insects.

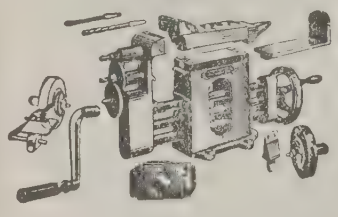
2. **Citrus Research.**—This work has been started in co-operation with the Murrumbidgee Water Conservation and Irrigation Commission of N.S.W. An experimental station has recently been established at Griffith, N.S.W., and a commencement has been made of the study of various citrus stocks, grown on different soils under various cultural conditions. Special methods of cultivation, especially in regard to stiff clay soils, are being investigated. Special attention is being given to green manuring, the application of artificial fertilisers, methods of working the soil to depths up to 3 feet, and drainage.

3. **Viticultural Investigations.**—The Institute has been working for some years in co-operation with the Mildura Vineyards Protection Board, which had previously made a commencement on viticultural investigations, and had established a research station under the charge of Mr. A. V. Lyon, B.Ag.Sc. A considerable amount of work has already been carried out on the following problems:—(a) The entomological pests and fungus diseases of the vine; (b) irrigation practices; (c) manurial problems; (d) fruit drying (hot dip methods); and (e) the determination of the best methods of planting, pruning and general culture as regards a vineyard. The results of these investigations have been published as the Institute's Bulletin No. 28. The work has received the general commendation of viticulturists and has resulted in a considerable improvement in routine practice. The study of the above-mentioned problems is being continued, and additional investigations relating to dried fruit pests and cold dip methods of processing fruit are now being made.

4. **Cold Storage of Fruit.**—The Institute, in co-operation with the Australian National Research Council, is already carrying out investigations in regard to the cold storage of meat. It is proposed to extend this work to fruit, and eventually to foods in general. After consultation with Mr. A. J. Smith, a scheme of research has been formulated, and it is hoped to start one man on fruit research at once. It is also hoped to send another to the Cambridge Low Temperature Research Station in order to study the British Food Board's methods. Much will depend, however, on the extent of the funds that it is understood are to be made available to the Institute.

5. **Marston Process.**—The Institute has undertaken trials (under strict control) of the Marston Process for the preservation of citrus fruit. Two shipments of Navel Oranges, after treatment in accordance with this special process, are now on their way to England, and a third is being prepared.

6. **Preservation of Dried Fruit from Insect Attack.**—A scheme has been formulated by the Institute for testing a method that has been developed by the Hydro-Vacuum Company, Melbourne. In this process the fruit is first subjected to a vacuum, and is then exposed to certain gaseous treatment, which, it is claimed, not only kills all stages of insect life present, but also confers immunity from attack for some months after treatment. If the process proves successful, it will, of course, be of great benefit to the dried fruit industry in preventing the present large losses caused by insects.

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## Fighting Orchard Pests.

### CHERRY BORER MOTH.

The moths have creamy-white wings with two dark dots on each of the upper wings. The larvae destroy Plums, Cherry and other fruit trees by boring tunnels into them and then eating the very heart of the tree. When the caterpillar or larva commences to tunnel a lot of sawdust-like material will be noticed, remove this and the tunnel can easily be seen. Plug the tunnel with a piece of rag dipped in bisulphide of carbon into this and cover over immediately with soap or clay to prevent the fumes from escaping. The caterpillar can often be destroyed by probing the tunnel with a piece of stout wire. The moths usually appear in October.

### RUTHERGLEN BUG.

Owing to the hot weather these most destructive plant bugs are becoming numerous. The following spray is recommended, viz:—1 quart phenyle, 3 lbs. washing soda, 1 bar yellow soap, 40 gallons water.

The soap is shredded and dissolved in hot water. The other ingredients are added, and the mixture made up to 40 gallons.

Benzole emulsion and tobacco sprays are also recommended.

### THRIPS.

Owing to the warm days these destructive insects have again made their appearance. As the flowers of fruit trees are now opened or opening it is advisable to spray with Benzole emulsion 1 in 25, nicotine sulphate or Black leaf 40.

### JAPANESE PLUM APHIDS.

These insects are very numerous at present and if left unchecked will cause much damage to the young flowers. Spraying should be carried out immediately. Tobacco sprays will give good results.

### BLACK CHERRY APHIDS.

During this month these most destructive Aphids will be noticed. No time should be lost when they are seen, spraying should be done immediately, otherwise the Cherry crop will be destroyed. They not only destroy the fruits but the trees also. The sprays recommended for Japanese Plum Aphids should also be used against these insects.

### THE APPLE ROOT BORER.

These beetles are now coming up from the roots of the Apple and other trees. The female beetle ascends the branches of the trees, lays her eggs (to the number of 40 or 50), on the leaves. Occasionally eggs are deposited on weeds. When hatched the young weevils descend to the ground and at once work down to the roots and tunnel them, causing the trees to die off. When a tree is attacked by the grub of this beetle, the fact will be discovered by the branches dying off from the top downwards.

Spray trees with arsenate of lead 1 lb. to 25 gallons of water. Place zinc bands round the butt of the tree to prevent the insects from crawling up to the leaves to deposit their eggs. Use Root Borer traps, examine these every week and destroy borers caught therein. Growers are advised to read article (page 301), "Fruit World," August, 1925, and September, 1925, p. 388, re Root Borer.

### SCALE INSECTS.

Young scales of Mussel, San Jose, Black or Olive and other scales are now moving from under the adult scales. It is advisable to spray at once with any of the nicotine sprays.


# Special Notice to Fruitgrowers

In response to numerous requests from growers for information as to who are members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA, the following list is given. All are members of the above Association, and are registered firms:—

**H. M. Wade & Co.**, 471 Flinders Lane, Melb.
**T. Stott & Sons**, 11 Western Market, Melb.
**F. Booth & Sons**, 15 Western Market, Melb.
**H. L. E. Lovett & Co.**, 410 Flinders Lane, Melbourne.
**A. E. Pitt**, 12 Western Market, Melbourne.
**J. Davis**, 13 Western Market, Melbourne.
**G. Woolf & Sons**, 3 Western Market, Melb.
**W. S. Tong**, 4 Western Market, Melbourne.
**Silk Bros.**, 441 Flinders Lane, Melbourne.
**J. G. Mumford**, 449 Flinders Lane, Melb.
**J. W. Ross**, 6 Western Market, Melbourne.
**W. Sweeney**, 14 Western Market, Melb.
**J. H. Young & Co. Pty. Ltd.**, 7 Western Market, Melbourne.
**D. Smith Pty. Ltd.**, 480 Flinders Lane, Melb.
**Silbert, Sharp & Davies Pty. Ltd.**, 17 Western Market, Melbourne.
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GROWERS PROTECT YOURSELVES by consigning to members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA.

Correspondence is invited by the Association.

J. D. FRASER, Secretary, 325 Collins Street, Melbourne.

## LIGHT BROWN APPLE MOTH AND PAINTED APPLE MOTH.

The caterpillars of these moths are now very numerous. The caterpillars of the former are green, and caterpillars of the latter are hairy. When the young caterpillars are hatched they immediately commence to destroy the fruit spurs. Later the former enter the fruit and the latter will, when the fruit is forming eat small pieces out of each fruit causing same, when fully matured, to become disfigured and unsaleable.

Control measures.—Spray with Arsenate of lead.

## DUST SPRAY FOR GRAPES.

Dusting has a decided advantage over spraying in that it is possible to dust a vineyard about two and one-fourth times as rapidly as it is to spray, and this results in a considerable saving in labor costs, states the New York Experiment Station. If a dust can be produced which will stick to Grape foliage, and which will effectively control Grape root-worm, and if such a dust could be sold at not more than 35/- per 100 pounds, it would be good economy for Grape growers to dust. Until such a dust is put on the market and thoroughly tested, however, the regular routine spray will be found much more satisfactory.

The Bordeaux spray mixture, which has given the best results in the Station experiments, contains 8 lbs. of copper sulphate, 8 lbs. of lime, 3 lbs. of dry arsenate of lead, and 3 lbs. of resin fish oil soap to each 100 gallons of spray mixture. Applied with the usual type of vineyard sprayer, it will take 125 to 150 gallons of this mixture to treat an acre.

### Produce More Per Acre.

In a recent address, Prof. A. J. Perkins, Director of Agriculture for South Australia, denies that rural production is on the decline in South Australia. After traversing the facts relating to pre-war and post-war conditions, and discussing the statistics, Professor Perkins emphasises the need for a greater production per acre, by planting the best varieties, scientific methods of tillage, manuring, and pest control.

## CHILEAN NITRATE OF SODA.

### Statistics for 1924-1925.

The World's consumption of Chilean Nitrate of Soda for the year ended 30th June, 1925, amounted to 2,350,000 tons, compared with 2,190,000 tons for the previous twelve months. Practically all the countries of the World were importers, and the United States of America again proved the largest consumer, accounting for the enormous quantity of 1,037,000 tons, as against 937,000 tons for the twelve months ended 30th June, 1924.

Cultivate not only the cornfields of your mind, but the pleasure grounds also.—Whately.

## USEFUL FRUIT RECIPES.

### Recipes for Marmalade.

If a very sweet marmalade is required, Naval Oranges are the best to use, but for a very bitter marmalade I suggest Poorman and Seville Oranges (states Mrs. L. W. Frost, of Saddleworth, in South Australian "Journal of Agriculture"). A tart marmalade can be made from Lemons, but a good, medium-flavored jam can be made from Citrons. I have secured the best-flavoured marmalade by mixing the fruits. Some of the best mixtures are:—(1) 1 lb. of Navel Oranges, ½ lb. of Citron, ½ lb. of Poorman Oranges, and one Lemon; (2) 1 lb. of Citrons, ½ lb. of Seville Oranges, ½ lb. of Poorman Oranges; (3) 1 lb. of Lemon, 1 lb. of Navel Oranges; (4) 1 lb. of citron, 1 lb. of Navel Oranges; (5) 1 lb. of Poorman Oranges, 1 lb. of Navel Oranges; (6) ½ lb. of Navel Oranges, ½ lb. of Citrons, ½ lb. of Poorman Oranges, 1 lb. of Lemons. To make the marmalade, place the fruit in cold water, and wash it with a brush.

If there are any marks on the fruit they should be scraped off with a knife. The fruit should be dried, cut in halves, and sliced, and all pips

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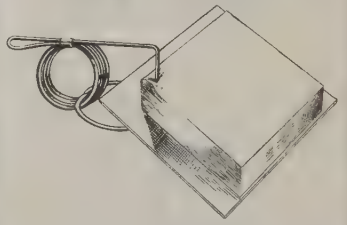
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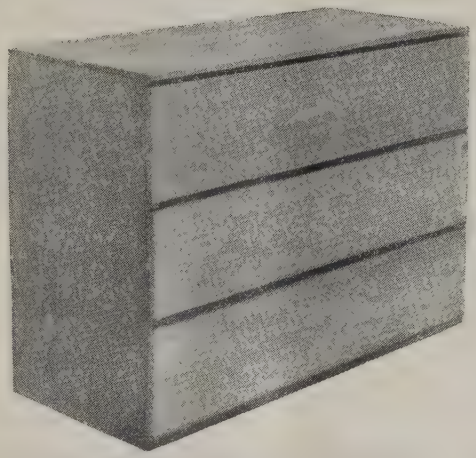
This was recently invented by Mr. Arthur Croft, Engineer of the Harcourt Cool Stores. That it is a valuable aid to the fruit packer is proved by the large number of growers in the district who are now using it.

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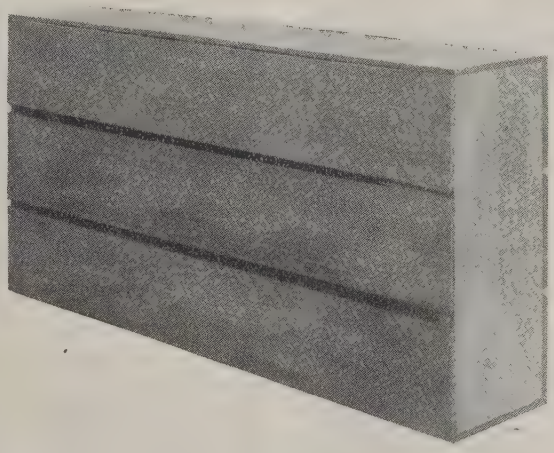
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**DRIED FRUIT CASE** with one piece side and two equal pieces tops and bottoms

**CANNED FRUIT** with one piece side and two piece tops and bottoms

## SOME ADVANTAGES IN FAVOR OF IMPORTED CASES

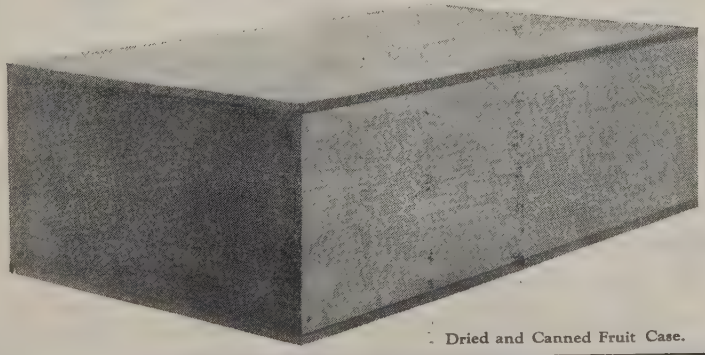
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removed. Place the fruit in a preserving pan, and to each pound of fruit add three pints of cold water; allow it to stand for 24 hours, then boil it for two hours, when 3 lbs. of sugar to each 1 lb. of fruit should be added. The mixture should then be boiled until it forms into a jelly, which usually takes about one hour. When it has boiled for about half an hour, the froth should be skimmed off. Marmalade should only be stirred after the sugar has been added and until it dissolves.

Some further recipes for marmalade not consisting entirely of citrus fruits were then read by Mrs. Frost:

**Melon Marmalade.**—Cut 12 lbs. of melon, and put it in a preserving pan; sprinkle it with 3 lbs. of sugar. Cut six Lemons or six Oranges, barely cover them with water, and allow them to stand over night. Next morning, put the Lemons or Oranges with the melon, and boil for three hours, then add 4 lbs. of sugar, and boil until it thickens.

**Quince Marmalade.**—Peel and cut up 10 lbs. of melon and 8 lbs. of Quinces, sprinkle the fruit with 4 lbs. of sugar, and allow it to stand over night. Boil it for about three hours, and then add 9 lbs. of sugar. Finally, boil the fruit until it thickens.

**Apricot Marmalade.**—Cut up 14 lbs. of melon, and sprinkle it with 3 lbs. of sugar. Soak 2 lbs. of dried Apricots in three pints of water. Allow both to stand for about 12 hours, then boil for three or four hours, and add 7 lbs. of sugar. Boil the fruit for one hour.

**Cinnamon Marmalade.**—Cut up 8 lbs. of melon and one large Lemon. Sprinkle the fruit with 2 lbs. of sugar, and allow it to stand for 12 hours. Then add half an ounce of cinnamon bark tied in a muslin bag. Boil it for about two hours, add 3 lbs. of sugar, and then boil until the mixture thickens.

**Pineapple Marmalade.**—Cut up 6 lbs. of melon and one large Lemon or Orange, 1 lb. of Pineapple, or one tin of Pineapple. Then sprinkle the fruit with 1½ lbs. of sugar, and allow it to stand for 12 hours. Then boil it for two hours, and add 3 lbs. of sugar. If preserved Pineapple is used, only 2 lbs. of sugar should be used. After adding the sugar, the mixture should be boiled for one hour.

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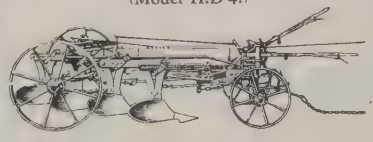
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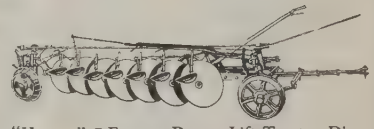


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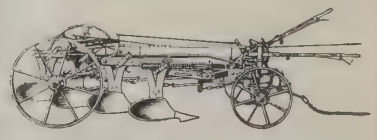


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## Fruit Crops Abroad.

**Interesting News Regarding English, Continental, Canadian, and U.S.A. Crops.**

Interesting news regarding the Canadian and U.S.A. fruit crops are to hand, by courtesy of Mr. P. H. Thomas, Tasmanian Government Fruit Expert:—Canada anticipates 95 per cent. of the 1924 crop, or 2,596,852 barrels (a barrel is approximately three bushels). British Columbia estimates harvesting 85 per cent. of the 1924 crop, or 1,981,350 boxes, compared with 2,331,000 boxes last year. In U.S.A. the crop is reckoned at 29,230,000 barrels, or 2 per cent. over the production of 1924. The nine Western States, however, expect to equal the crop in the remainder of the country, whereas in 1924 the West had only 40 per cent. commercial production, the State of Washington leading with 9,122,000 barrels, an increase of 2,472,000 barrels over last year's yield.

### ENGLAND AND THE CONTINENT.

Although the English Apple crop had an excellent early showing of blossom for both cooking and dessert varieties, a prolonged period of drought, followed by a heavy drop, has made the prospects less favorable. Such favorite cooking varieties as Bramley Seedling, Lane's Prince Albert, Newton Wonder, and the popular dessert varieties, Cox's Orange and Worcester Pearmain, will be considerably lighter than at first expected, and, it is estimated, will be about half the average crop.

Continental crop prospects, especially Southern Europe, is considerably lighter than 1924. The Italian Tyrol and Czecho Slovakia, the two heaviest exporting districts, report light crops, showing 40 per cent. of last year, of which 80 per cent. is available for export.

Denmark and Holland are practically a failure; other Continental sections are very light.

### AMERICAN APPLE CROP.

Messrs. T. Boss-Walker Limited, of Hobart, have received from the Internationale Frucht-Import-Gesellschaft, of Hamburg, a cablegram, dated the 10th September, indicating that with regard to the American Apple crop there is a full crop of the early varieties, which will be available up to Christmas; but that of the later varieties—those which affect the sale of Australian and Tasmanian Apples in the English and German markets—the crop is only fifty per cent. of that of last year, which was an exceptionally light one, the total quantity of Apples in cool storage in the United States on the 1st January last being 14,673,600 bushels less than at the same date in the previous year.

### SOUTH AFRICA.

### EXPANDING FRUIT TRADE.

During the deciduous fruit export season just over, about 1,541,000 boxes of fruit were shipped to the oversea market, showing an increase on the previous season (1923-24), of over 50 per cent. (states the Journal of Agriculture, South Africa, July 1925). Citrus export this year is expected to show a similar increase, for it is estimated that 800,000 boxes will be shipped as against 522,000 boxes in 1924.

It is the opinion of those intimately associated with the fruit growing industry in South Africa, that in three years' time there will be an annual output of

**3,000,000 boxes of Oranges**

alone available for export. To transport this great quantity of fruit presents a problem of some magnitude. It would require 770 train loads, each containing 13 trucks; in other words, on an average, 4 such train loads would need to be despatched every day for six months. The bulk of the trade, however, falls in the months of June, July and August, so that during those months in three years hence an average of about 6 train loads of 13 trucks each will be taking daily their full freight of Oranges to the ports for shipment.

This will indicate the rapid expansion of South Africa's fruit industry which last year exported fresh and dried fruit to the value of £459,000.


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### SUBSCRIBERS' PAYMENTS RECEIVED.

The following are the subscriptions received from July 1st to August 31st, 1925.

Owing to pressure on space, we were unable to publish the full list, and have included the letters from A to L, and will publish M to Z next month. If any of our readers wish to have a receipt, same will be forwarded on receipt of further word.

Abbots Bros. (June, '26), F. Adamson (June, '26), W. G. Ahrens (July, '25), Airedale Orchards (June, '26), R. Aitken (June, '26), J. Aird (June, '26), Mrs. J. Alexander (June, '26), L. A. Alford (June, '25), H. R. Alexander (June, '26), M. G. Anderson (June, '26), Angaston Fruitgrowers' Co-op. (June, '26), W. S. Arnold (June, '26), A. J. Arnot (June, '25), Geo. Arbuckle (June, '26), E. Ashby (June, '26), G. H. Atkins (June, '26), F. Attenborough (June, '26), H. C. Austin (June, '26), P. Aurish (August, '25), Aust. Fruit & Produce Co. (June, '26), H. Aumann (June, '25), W. V. Bartram (April, '26), E. N. Barton (June, '26), E. H. Bastian (June, '26), N. B. Barnett (June, '25), F. E. Barnes (June, '26), R. G. Bell (June, '26), H. Birmingham (June, '26), Bisdee Bros. (June, '26), B. J. Bennett (June, '27), A. H. Blundell (June, '25), H. Blake (June, '26), S. H. Blee (August, '25), E. Borley, (June, '26), F. W. Boehm (June, '25), A. W. Bowen (June, '26), W. Le Gay Brereton (June, '26), A. B. Briggs (August, '25), J. T. Briggs (August, '25), A. B. F. Brockhoff (June, '26), J. Burton (June, '26), W. Burrows (June, '26), F. Butler (June, '26), J. Buckhorn (June, '26), Burnside Co. (June, '26), J. Butterworth (June, '26), E. E. Burgess (June, '25), P. R. W. Burns (June, '26), S. T. Calvert (June, '26), M. Campbell (June, '26), H. G. Caldicoot (June, '26), H. Carson (June, '25), W. H. Carne (June, '26), A. J. Campbell (June, '26), P. Chatam (July, '26), P. G. Chipperfield (August, '25), H. V. Child (June, '26), F. W. Chesterfield (June, '26), T. Chapman, (June, '26), J. J. Charlton (June, '26), E. T. Charles (June, '26), D. V. Chapman (June, '26), W. B. Chaffey, (June, '26), W. Collyer (June, '26), J. P. Cowey (April, '25), T. J. Cooper (June, '26), J. N. Cox (June, '26), G. Costin (June, '26), T. Cox (June, '26), H. C. Connor (June, '27), C. Cooper, (June, '26), E. R. Cottier & Co. (June, '26), A. Copeland (June, '26), P. J. Clark (June, '26), A. 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**"CORONA DRY"** is conceded the foremost position among spray leads. This acknowledged great prestige is the result of constant adherence to the highest quality chemists can produce. The extreme care and painstaking chemical controls gone to in our works have produced a clean and white spray lead which is finely subdivided, unusually adhesive and extra chemically active, as denoted by the purity of many chemical analyses. All of these qualities produce a spraying material of measureless distribution, therefore giving the greatest poisoning power.

**"CORONA DRY"** has been the choice of successful orchardists since 1912, and upon scientific investigation has been found particularly suitable against the Codlin Moth.

### REASONS FOR USING "CORONA DRY"

Due to its extreme fineness and fluffiness, it mixes readily and quickly, remaining longer in suspension, giving more even and better distribution.

**"CORONA DRY"** Arsenate of Lead is the ideal spray for all fruits and garden vegetables.

One pound of **"CORONA DRY"** will do the work of two to three pounds of paste, and do it more thoroughly.

**"CORONA DRY"** combines convenience, economy and efficiency.

NEW ZEALAND DISTRIBUTORS—

**The NEW ZEALAND FRUITGROWERS' FEDERATION Ltd.**

**WELLINGTON, N.Z.**

RESPONSIBLE DISTRIBUTORS DESIRED
FOR EACH OF THE AUSTRALIAN STATES

**Corona Chemical Division**

PITTSBURGH PLATE GLASS CO. P.O. BOX 168, NEWARK, N.J., U.S.A.

## Poultry Notes.

SUMMER is upon us, and shady runs are essential if the birds, especially the young chicks, are to be kept in good health throughout the hot weather.

* * *

Fresh water is another important item that must not be overlooked. The best plan is to replenish the drinking vessels twice daily while the hot weather lasts.

* * *

Don't put the drinking water where the sun can heat it up, select a shady spot and keep the vessels clean.

* * *

Good supplies of green food should be made available from now on, the young birds will enjoy it, and it will keep them fit and cool and growing.

* * *

For young chicks, green stuff should be chopped fairly fine, and supplies of grit should not be forgotten.

* * *

To be forewarned against the pests that arrive with the hot weather, particularly amongst the laying portion of the flock, is to be forearmed against them.

Lice and red mites will play havoc in your stock if steps are not taken at once to prevent their appearance.

* * *

The eggs of these pests will soon be hatching out, and destruction should be the order of the day.

* * *

The red mites' eggs will easily be recognised on the underside of the perches, beneath nest boxes, or any old place where cover is afforded, in the form of a fine white dust.

* * *

Whitewash or limewash has a sweetening influence, and purifies the houses, and beside the important insecticidal effect makes the houses look cleaner and better.

* * *

If a small quantity of carbolic is added to the wash, the insect killing power of it is intensified.

* * *

The addition of salt to limewash will have the effect of hardening the coat and giving it durability.

* * *

Little's liquid phenyle is a splendid disinfectant, and should follow the wash, if no other insecticide is used.

Too much importance cannot be given to these pest preventing measures, as clean, healthy birds mean bigger profits.

* * *

Lice can be combated by providing plenty of dust baths, the birds will do the rest; there is nothing they enjoy better. In the hot months it is as well to deep the dust baths moist.

* * *

If the birds are troubled with lice, insectibane or Little's phenyle powder dusted on the feathers will remove them.

* * *

Special attention should be given to the neck and under the wings, which are the spots usually most troubled.

* * *

Spray the perches and houses with phenyle or caustic regularly, to kill night bugs, and see that no sour food is allowed to lie about in the sun.

* * *

This latter and stagnant water are the causes of diarrhoea, so special attention should be given to them.

* * *

An ounce of prevention is worth a ton of cure in the poultry yard!


# Edward Jacobs & Sons

## Covent Garden Market, London

### Solicit Consignments of Tasmanian Fruit

The high standing and long experience of this old established firm are sufficient guarantee to growers that all fruit entrusted to their care will return the highest market values together with prompt settlements.

**Tasmanian Representatives:**

**JOHNSTONE & BENNETT, 27 Argyle Street, HOBART**

**Shipping No. 418.**

# Maintaining an Egg a day Standard



From the end of this month, the natural urge of egg-laying, and to which fowls have so nobly responded during the last three or four months, will be appreciably lessened. What is generally recognised as the "peak" period under purely normal conditions will have passed. For this, fowls cannot be blamed. They cannot be expected to go on laying—producing eggs like a machine, whose output is simply governed by the amount received into its maw and whose efforts consist of a few more or less complicated turns and revolutions.

Each time a hen lays an egg, a direct loss of nervous energy is sustained: a far greater nutritive value is taken away than can be extracted from the daily consumption of ordinary foods.

Only by decreasing this daily discrepancy and maintaining a more equal balance can an egg-a-day standard and a longer "peak" period be attained. It is the special function of Karswood Poultry Spice to do this.

Amongst its tonic ingredients are dried and ground insects, containing assimilable phosphorous—one of the most essential constituents of egg-formation and growth.

Test Karswood for a fortnight, the cost is negligible. (One 2/- packet is sufficient for 20 hens for 32 days).

Prices:—½ lb. packets, 1/-; 1 lb. packets, 2/-; 7 lb. tins 13/-; 14 lb. tins, 25/-; 28 lb. tins., 48/-.

Note:—Postage on ½ lb. packet, 6d. extra; 1 lb. packet, 9d. extra.

### 10 EGGS A DAY FROM 11 HENS

". . . I have been using 'Karswood' Poultry Spice for 6 months, and after a fortnight's use I have not been a single day without eggs. Previous to this, my birds, although well fed, simply would not lay except an occasional egg. They are getting exactly the same quantity and manner of food now as previously, yet for the past six months I have had 7—10 eggs per day from only 11 hens, and this through the winter months. I think 'Karswood' is 'great,' and I now want to try 'Karswood' Pig Powders too, and watch the results."

(Sgd.) MRS. V. SIMMONS,
Gippsland, Victoria.

### EGG BOXES FULL!

This is to certify that I have used your Karswood Poultry Spice, and for getting birds into show condition and health I find nothing better; also, to increase the egg yield.

I am an Exhibitor in all the leading Shows in N.S.W., and can recommend Karswood Spice to all who wish to be amongst the winning cards; also, to keep their flocks in the best of health and condition, and to keep the egg boxes full.

You may use this as a guarantee of my faith in Karswood Spice, as I am one of the leading Fanciers in N.S.W., and am known all over the world. See if this is any use to you as a testimonial. I shall be pleased to see it amongst your advertisements.

(Sgd.) C. A. CLARKE.
Mader Poultry Yards, Merewether, via Newcastle.

### NOTE THE ECONOMY.

1/- packet supplies 20 hens for 16 days.
2/- packet supplies 20 hens for 32 days.
13/- (7lb. tin) supplies 140 hens for 32 days.

### SUPPLIES.

"Karswood" Poultry Spice is obtainable from all Stores and Poultry Food Suppliers at the following standardised prices:—

| | |
|---|---|
| ½ lb. packet .. .. .. .. | Price, 1/- |
| 1 lb. packet .. .. .. .. | Price, 2/- |
| 7 lb. tin .. .. .. .. .. | Price, 13/- |
| 14 lb. tin .. .. .. .. .. | Price, 25/- |
| 28 lb. tin .. .. .. .. .. | Price, 48/- |

*If your local dealer cannot supply you, write direct to "Karswood," Box 2138, G.P.O., Sydney, adding postage----6d. on half-pound packets and 9d. on one-pound packets---to the above prices.*

# The Fruit Trade

*Market Reports and News Items.*

**REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS,**

**Advertising in this Journal.**

**NEW SOUTH WALES.**

**Sydney.**
Chilton, F., City Fruit Markets.
Greenberg, S. & M., Fruit Markets.
Louey Pang & Samuel Wong Ltd., Thomas St., Haymarket.
Rogers, F. H. G., Fruit Exchange.
Rule & Beavis, Fruit Exchange.

**VICTORIA.**

**Melbourne.**
Coastal Farmers' Co-op. Society, Western Market.
Cave, F., & Co., Melbourne.
Davis, J., Western Market.
Lister, G., Western Market.
Millis, A., & Sons, Western Markets.
Mumford, J. G., 449 Flinders Lane.
Pang & Co. Ltd., H. L., Little Bourke Street.
Silbert, Sharp & Davies, Western Markets.
Stott & Son, T., Western Markets.
Tim Young & Co., Western Market.
Vear, F. W., 49 William Street.
Wade & Co., H. M., 471 Flinders Lane.
Woolf, G., Western Market.

**QUEENSLAND.**

**Brisbane.**
Barr, A. S., Fruit Exchange.
Collard & Mackay, Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Finlayson & Son, Fruit Exchange.
Geeves, H. V., Fruit Exchange.
Robsons Ltd., Fruit Exchange.
W. J. Whitten & Co., Fruit Exchange.

**TASMANIA.**

**Hobart.**
Jones & Co. Ltd., H., Fruit Exporters.
Peacock & Co., W. D., Fruit Exporters, and at London.

**Launceston.**
Bender & Co., 110 Elizabeth St.

**NEW ZEALAND.**

**Auckland.**
Radley & Co. Ltd., Fruit Auctioneers.
Turner & Growers Ltd., City Markets.

**Dunedin.**
Co-operative Fruitgrowers' of Otago Ltd.
Paterson, Thos., & Co., Vogel Street.
Reilly's Central Produce Mart.

**ENGLAND.**

**London.**
Da Costa, Gerald, Floral Hall, Covent Garden.
Jacobs, E., & Sons, Covent Garden
Joel, R., & Sons, 16, 17, 20 Russell St., Covent Garden.
Margetson & Co. Ltd., Covent Garden.
Monro, Geo., Ltd., Covent Garden.
Poupart, T. J., Ltd., Covent Garden.
Ridley, Houlding & Co., Covent Garden.
Swann & Co., 3 Salter's Hall Court.

**Hull.**
White & Son Ltd.

**Liverpool.**
Adam, James, Son & Co., 1 Temple Court.

**Coventry.**
Boswell Bros. & Davis.

**GERMANY.**

**Bremen.**
Fruchthandel, Gesellschaft, Reps. Renne, Harris Pty. Ltd., 434 Collins St., Melbourne.

**Hamburg.**
Astheimer, P. H., & Son., Fruchthof.
Lutten, J. H., & Co., Hamburg.
Stier, Aug., Fruchhof, Reps. J. B. Mills & Co., 9 Queen St., Melbourne.

## British and Australasian Market Reports.

**London.**

Messrs. Gerald Da Costa, Covent Garden, London, report, 22/8/25:—

South African Oranges: Navels, 15/-, 27/-; Seedlings, 18/-, 25/-; Grape Fruit, 25/-, 32/6. Australasian Apples: Tasmanian Sturmers, 8/-, 12/- box.

* * *

Messrs. T. J. Poupart Ltd., Covent Garden, London, report, 14/8/25:—

Trading has been rather unsatisfactory during the past week owing to weather conditions and migration to holiday resorts. A number of Australasian and New Zealand Apples are available, also some from Portugal and America. South African Oranges are also plentiful although a fair number arrived in an unsatisfactory condition. The sale for Canary Island and West Indian Bananas has been affected by the general lack of demand. Spanish and Sicilian Lemons have not been supported. Owing to limited supplies of South African and West Indian Grape Fruit, these have sold well. Small quantities of Pears from California are making high prices. French William Pears and small Plums are very plentiful, but Greengages (both French and Spanish), are realising higher prices. A number of Peaches have arrived from Italy. There is a shortage of good quality Grapes, but an abundance of second grades severely affected by the Belgian and Dutch supplies. Finest Hambro realised 3/- to 3/6; other qualities from 1/- to 2/- per lb. Alicante, 1/9 to 2/-; poorer grades 1/- to 1/6. The small quantities of Black Currants that have arrived realised from 1/- to 1/6 per lb.

* * *

**Liverpool.**

Messrs. Houghton & Co., 1 Temple Court, Liverpool, report 19/8/25:—

The quality of American Barrel Apples this year is much above that of last year, the prices realised being, Wealthy, 20/-, 40/- (mostly 28/-, 33/-); Gravenstein, 40/-, 42/-; Duchess, 23/6, 30/6. California Gravenstein Box Apples sold well, 15/- to 21/-. Bartlett Pears were rather over-ripe on the whole which undermined the confidence of buyers. Prices, 12/-, 20/- per box; B. Hardy, 22/6, 27/-. A good supply of South African Oranges and Naartjes was available, Navels 200/288, 1st grade, 24/-, 31/6, second, 23/-, 27/-, third, 11/6, 22/6. There was also a good demand for high class Lemons from Naples and Palermo, and a slight appreciation in values, but inferior lots do badly. The following prices were obtained in Lemons,—Palermo, 5/-, 9/- a case (best 13/6, 16/9); Naples, 16/6 and 30/- a large box; Murcia, 8/- and 20/- a half-case.

* * *

The following prices are reported by cable from the Canadian Fruit Trade Commissioner in England:—

**Glasgow**, August 19th. — Apples, Barrels, 20/- to 42/-.

**Liverpool**, August 21st. — U.S.A. Apples, boxes, California Gravenstein, extra fancy, 16/6 to 20/-, Virginia Wealthy, barrels, 25/6 to 27/-.

### NEW SOUTH WALES.

**Sydney** (24/8/25).

The demand fluctuates almost daily according to weather conditions, and unless fine warm weather soon sets in the outlook for citrus growers this season is not attractive.

Apples and Pears are in moderate demand only, and supplies coming forward seem adequate for present requirements of the trade.

**Queensland Fruits.**—Bananas, 12/- to 22/- per case; Pines, Smoothleaf, 8/- to 13/-; Ripley, 6/- to 9/-; Tomatoes, 8/- to 14/- per half-case. **New South Wales Fruits.**—Bananas, 12/- to 22/- per case; Lemons, 2/6 to 5/- per bushel case; Oranges, Valencia, 7/- to 9/-; Common, 2/- to 7/6; Navel, 7/- to 13/-. Mandarins, Emperor, 4/- to 14/-; Thorny, 3/- to 6/- per half-case. Apples, Granny Smith, 11/- to 20/- per bushel case. Passions, 5/- to 17/- per half case. **Victorian Fruits.**—Apples, R.B. 9/- to 15/- per bushel case; Jonathan, 10/- to 15/-; Yates, 9/- to 16/-. Pears, Packham, 10/- to 15/-; Josephine, 11/- to 17/-; W.N., 8/- to 16/-. **Tasmanian Fruits.**—Apples, S.T.P., 8/- to 13/-; C.P.M., 11/- to 16/-; Dem., 12/- to 17/-; N.Y.P., 9/- to 14/-; Jonathan, 9/- to 15/-; F.C., 8/- to 14/-; S.P.M., 10/- to 15/-.

### VICTORIA.

**Melbourne**, (2/10/25).—Apples, eating, choice, 7/- to 12/- per case; cooking, 7/- to 10/-; inferior, lower. Pineapples, Queensland, 10/- to 15/-. Bananas, green, 18/- to 24/-; ripe, 25/-. Passion fruit, Victorian, choice, 25/- to 30/-; inferior, lower. Oranges: New South Wales and Victorian, 6/- to 9/-; Victorian navels, 8/- to 12/-; special, higher; Mandarins, 10/- to 15/-; small, 4/- to 6/-. Lemons, Victorian, 4/- to 7/-.

* * *

**Melbourne.**

The V.C.C.A. Market Representative reports as follows for the week ending September 25th.—

There has been a gradual improvement in the price of navels over the last week. Although supplies have

been heavy, stocks were sold readily. Mandarins of first quality sold well, but small to medium have been much harder to dispose of at good prices. The market for Lemons remains exceptionally dull. Common Oranges have increased a little in price. Should the weather remain fine the following prices are anticipated.—

Navels.—Murray Valley Special, 10/- to 14/-; Goulburn Valley (special), 8/- to 12/-, (standard), 1/- lower. Commons.—Sydney 5/- to 8/-; Murray Valley, 7/- to 10/-; Mandarins.—Special large, 14/- to 16/-; Small to medium, 6/- to 12/-. Lemons, 4/- to 7/-.

### SOUTH AUSTRALIA.

**Adelaide** (24/9/25).

Apples, 12/- to 14/- per bushel case; Cooking, 10/- to 12/-. Bananas (Fiji), 30/- to 34/- per case. Lemons, 6/-. Loquats, 8/- to 9/-. Oranges, Poorman, 6/-; Common, 7/-; Blood, 8/-; Mandarin, 16/-; Navel, 10/-. Passion Fruit, 44/- to 48/-. Pears, Eating, 12/- to 14/-; Cooking, 10/- to 12/-. Pineapples, 16/- to 18/-.

### WESTERN AUSTRALIA.

**Perth** (26/9/25).

Apples, Cleo., prime, 11/- to 13/6 dump cases; others 9/-; Dunn's, prime, 11/- to 14/3; others, 8/- to 9/6; Yates, prime, 10/- to 15/9; others, 8/- to 10/-, (inferior from 4/-); Granny Smiths, prime, 14/- to 17/3; others, 11/6 to 13/-; Rome Beauties, prime, 10/6 to 12/6 (a few to 15/-); others, 7/6; Doherty's, prime 10/- to 13/ (a few 14/-); others, 7/- to 9/-; Rokewoods, prime, 8/- to 13/-; others, 2/6 to 6/-; Statesmen, 10/-; Schoolmasters, 12/-. Pears.—Winter Nelis, 8/6 to 8/9. Citrus Fruits.—Navels, prime, 10/6 to 18/3; others, 7/- to 10/-; Oranges, prime, 5/- to 7/6 (choice to 10/3); others, 2/- to 4/-. Mandarins, prime, 7/- to 12/3 (a few 13/-); others, 2/- to 6/-. Lemons, prime, 3/6 to 6/- (choice 9/-); others, 2/-. Passion fruit, flats, 26/-; half-flats, 8/6 to 17/6. Loquats, prime, 7/- to 15/6; others, 4/- to 7/-. Strawberries, 12/- to 25/3.

### QUEENSLAND.

**Brisbane** (29/9/25).

Local Fruit.—Lemons, 2/- to 4/- a half-bushel case. Custard Apples, 4/- to 7/-. Papaws, 2/- to 4/-. Pineapples, rough leaf, 5/- to 7/6 a case, 1/- to 4/6 a dozen; smooth leaf, 3/- to 5/- a case, 1/6 to 3/- a dozen. Oranges, special 9/- to 10/-; commons, 5/- to 8/-. Mandarins, special, 17/- to 21/-; small 10/- to 14/-. Strawberries, best, 10/- to 14/- a dozen boxes; others 3/- to 7/-. Passion Fruit, 8/- to 14/-.

### TASMANIA.

**Hobart** (19/9/25).

Apples, Democrats No. 1, 14/-; medium, 11/6 to 12/6; others to 9/6; A.B., 7/6 to 10/-; Jonathans, 6/6 to 7/-; C.P.M. No. 1, 13/3; others, 3/2 to 4/-; S.P.M., 3/5 to 5/6; Del. No. 1, 17/-; S.T.P., 3/- to 8/6; F.C., 3/6 to 5/6; F.C.P., 4/-; N.Y.P., 4/9 to 7/-. Oranges, Navels, 14/- to 15/-; Common, 13/- to 14/6. Mandarins, 17/- to 18/-. Lemons, 9/6 to 13/-.

### NEW ZEALAND.

**Dunedin** (18/9/25).

Reilly's Central Produce Mart, report under date 18/9/25, as follows:—

Good sales of fruit and produce of all descriptions. Business generally has a much better tone.

Oranges, Navels, choice to 22/6; Rarotongan, 26/9; Smooth Skin Sevilles, 15/-. Mandarins, Choice N.S.W., 24/-; Adelaide, 22/-. Bananas, Ripe choice, 30/-; Green 20/-. Passions, Choice, 22/6. Pineapples, Choice coloured, 24/-. Tomatoes, Local hothouse choice, 2/8; seconds, 1/8 per lb. Lemons, N.S.W., 20/-; South Australian, 22/6; N.Z. 14/-.


**THE GREATEST TROUBLE**

people have who suffer from Rheumatism or Neuritis is in preventing a return of the attack. It comes back year after year despite all the rubbing and ordinary treatment they undergo. This is because they do not drive the dregs of the complaint, which is a poisonous acid in the blood, from the system. No amount of rubbing will do that, the trouble is in the blood. A treatment for Rheumatism or Neuritis that aims at driving out of the system, the cause of the complaint is certainly commonsense. People who have used A.M.S. —a blood purifying medicine—acting through the Stomach, Liver and Bowels —find that its action not only eliminates the cause of Rheumatism and Neuritis from the system, but fortifies it against future attacks. Therefore, try A.M.S. It is the medicine which makes you feel strong and well. Sold by all chemists and country storekeepers, at 3/-, by post 3/6. Manufactured by T. A. Dickson, Chemist, Geelong, Vic.

**FOR SALE**

COUNTRY PROPERTIES.—Goulburn Valley. Highly improved Irrigation block 69 acres. 30 acres Lucerne, balance orchard mainly Citrus, Apricots, Prunes, Almonds. Exceptionally nice house, water laid on to bath and kitchen. Wizard lighting. Up-to-date sheds, well fenced. Can be secured a bargain, on £1,000 deposit. Owner leaving country. Full particulars, apply ESMOND RUSSELL, 60 Queen Street.

**J. G. MUMFORD**

(Established 1906)

**Fruit & Vegetable Salesman**

Account Sales Posted Daily

**APPLE EXPORTER**

"Fruit Exchange,"

449-451 FLINDERS LANE

Branches { Western Market / Victoria Markets

MELBOURNE

*Reference—Satisfied Growers in all States.*

**FRUIT SHIPMENTS —— TO NEW ZEALAND**

**Dunedin (N.Z.) and South Seas Exhibition**

**REILLY'S CENTRAL PRODUCE MART LTD., DUNEDIN**

advise Growers of CHOICE FRUITS to ship to Dunedin.

**REILLY'S** anticipate an increased demand for all lines of choice Fruit arriving on this market between the months of September, 1925 and May, 1926.

**REILLY'S** offer Fruitgrowers their faithful service and will be pleased to advise Fruit Shippers the probable prices available and prospects of making suitable sales.

Cable or write to **Reilly's, Dunedin.** Codes used—BENTLEY'S, MARCONI'S, WESTERN UNION, A B C 5th & 6th Ed.

**—— REILLY'S GUARANTEE FAITHFUL SERVICE TO ALL CONSIGNORS. ——**

## ORCHARDISTS . . .

The

# ELLIS FRUIT GRADER

**For all Classes of Fruit.**

PERFECT GRADING - - NO BRUISING

**A WISE BUYER makes sure that he buys the BEST**
**See the ELLIS before ordering elsewhere**

Hundreds of other Fruit Growers are now using it.
Write for their Testimonials

Mildura Co-operative have now installed their FOURTH, saying—
*"Your Machine is the best yet introduced to us."*

One great advantage of this Grader is that the fruit simply rolls on to your packing table and will keep eight packers busy. No second handling by carrying of fruit from grader to packing table.

**ELLIS FRUIT GRADER CO.**
(E. W. GREENWOOD)
**Corner Elizabeth and a'Beckett Sts., Melbourne**
Or H. F. GREENWOOD, Merrigum, Vic.

**Concentrated Tobacco Extract—**
is recognised by scientists and practical growers to be the **best and most economical** specific against APHIS and many other kinds of Fruit and Vegetation Pests

The Most Reliable Tobacco Spray IS—

# "INSECTO"

Highly Concentrated
Wonderfully Effective

**SULPHATE OF NICOTINE**

Manufactured in Australia for Australian conditions by the makers of the well-known "Harbas" Red Spraying Oil, "Harola" Lime Sulphur, "National" Bordeaux Powder, etc. etc.

**A Trial will convince you.**

We state definitely there is no need to use an imported product.

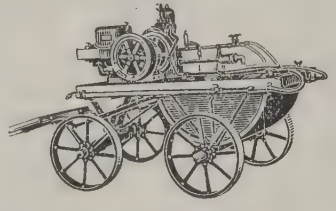
**"INSECTO" has**
QUALITY Right and PRICE Right and is Australian Made.

Full Particulars from

## ESMOND RUSSELL

60 Queen Street . . . Melbourne

## Sunshine Spraying Outfit



Engine, 2 h.p. 4 cycle, Horizontal, with two flywheels, direct geared to double cylinder pump, with air chamber and pressure gauge. Wooden tank, 80 gallons, with mechanical agitator. Mounted on substantial 4 wheel carriage, with shafts. Equipped with two 30ft. hoses, directors and nozzles, or with spray guns. Maintains pressure to 200 lbs. Also supplied as a Sheep Jetter.

**A Safe Investment for the Orchardist.**

Write for Catalogue and Price List. Mention this paper.

**H. V. McKay, Pty. Ltd.**
SUNSHINE HARVESTER WORKS
SUNSHINE
**Showrooms—**
**664 Bourke St. West, Melbourne.**
And at Brisbane, Sydney, Adelaide, Perth.

**ESTABLISHED 1891**

# AUG. STIER

**FRUIT BROKER,**

**Fruchhof, HAMBURG**

Telegraphic Address: *FRUTERO, Hamburg.*
*Consignments Solicited*

*Agents for Victoria and South Australia:—*

**J. B. MILLS & CO., 9 Queen St., Melb.**

*Tasmanian Representatives:*

**SILBERT SHARP & DAVIES**
**Clyde Street, Hobart, Tasmania**

*Reliable Representatives wanted for the other States.*

READ The GARDEN LOVER The Brightest Horticultural Monthly

Write for sample copy to— 6d. per copy: 6/- per annum.

"GARDEN LOVER" 9 Queen St., Melbourne

## FRUIT TREE NURSERY REPORT

Mr. G. W. Peart, proprietor C. J. Goodman's Nurseries, Bairnsdale, Vic., reports under date September 10th:—

The season just concluded was an improvement on what have been experienced for some seasons past, but the aggregate sales are still a long way below what they were in pre-war days, when the big commercial plantings were in full swing. Prunes, Plums and Apricots are being neglected, but some kinds of Apples, Cling Peaches, Pears and Almonds are in strong demand. The best selling Apple tree this year has been Granny Smith, but growers will be well advised not to place all their reliance for an Apple crop on "Granny." That planters are waking up to the huge advantage of standardising their varieties is more apparent than ever. This must be maintained and the ultimate end must be for good.

Sales of the Apple crop overseas were very satisfactory, and the near future should see a revival of planting in export varieties, particularly.

### Taking Notes.

Billy, the bad lad, was getting along finely with the strong-room box of the local bank, when a policeman interrupted proceedings.

"Aha!" exclaimed the constable. "Now what are you doing here, I should like to know?"

Billy thought for a moment, "I'll tell you the truth," he said at last. "I am a financial reporter."

"You are, are you? How do you make that out?" said the policeman.

"I'll tell you that, too," said Billy. "You see, I am only taking a few notes."

## Spring Garden Week.

**Melbourne, October 7th, 8th, and 9th.**

**Australia's "Chelsea" Show.**

Arrangements are now well in hand for the big Horticultural Trade Exhibition (Garden Week) to be held at Wirth's Olympia, Melbourne, on October 7th, 8th and 9th, under the auspices of the Nurserymen and Seedsmen's Association of Victoria. The committee responsible for the arrangements is as follows:—Messrs. J. Railton, J. W. Robinson, Harvey Cheeseman, H. A. Cheeseman, B. Hodgins, A. Rimington, E. Wiseman, W. R. Warner, R. Wright, with the Secretary, R. E. Boardman.

The two large halls at the Olympia will be transformed into vistas of smiling horticultural beauty.

The first hall is to be set out as a model garden, size 48 feet by 33 feet


# METTERS NUFREND SPRAYING OUTFITS

We are taking this opportunity of introducing ourselves as makers of SPRAYING OUTFITS as an adjunct to our many other lines. WE HAVE A CATALOGUE OF SPRAY PLANTS which should fill any requirements in the VINEYARD or ORCHARD, also for the BLOWFLY PEST.

Included in this list we have **Hand Power, Horse Tractor Power and Engine Power.** Our Pumps are standardized—all wearing parts are of **Brass and Bronze,** and easily **replaced.** We can supply **Power Plants** for narrow lands, which are equally safe in their operations in the hill districts, as in flat country.

**We ask you to write us for a complete Catalogue and state what your requirements are, so that we can advise you to the best advantage.**



*Catalogues posted free to any Address.*

METTERS LIMITED, 142 Rundle St., ADELAIDE, S.A.

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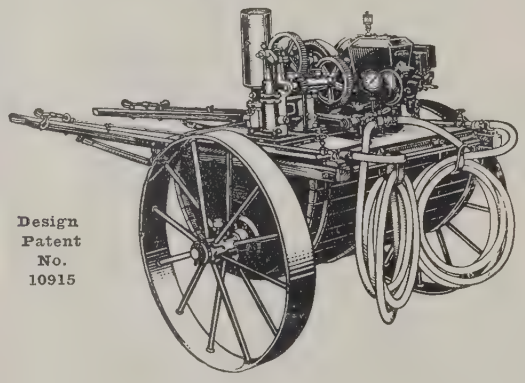
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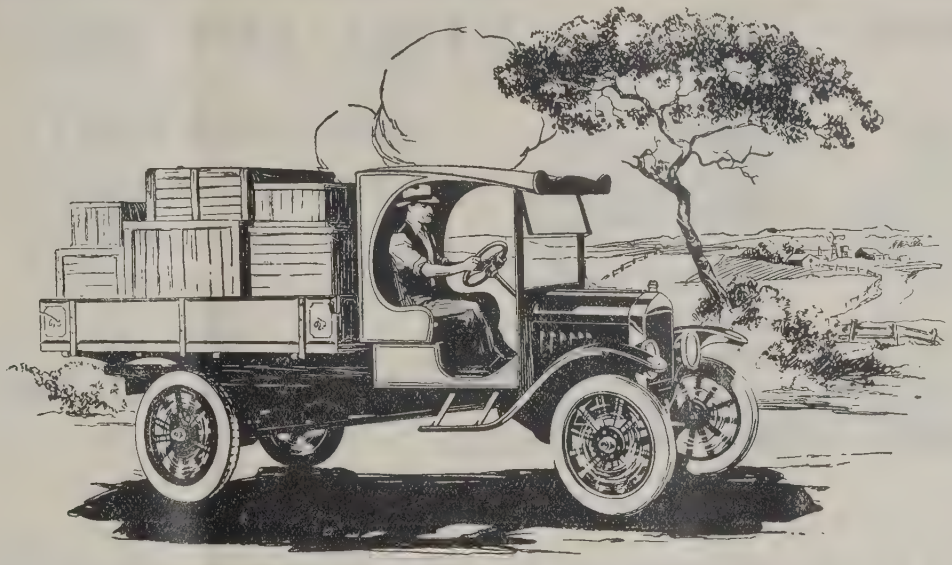
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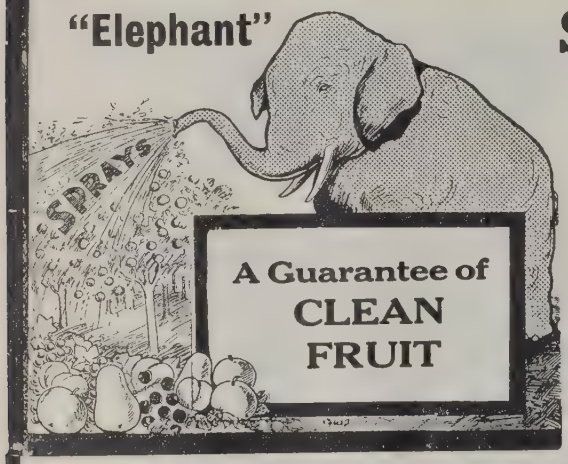
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# Fungous Diseases of Fruit Trees in New Zealand and their Remedial Treatment.

By G. H. Cunningham, B.Sc., Mycologist, Biological Laboratory, Department of Agriculture, Wellington, N.Z.

*Appreciation by Prof. McAlpine.*

Having read the new book on "Fungous Diseases and Their Treatment," Professor D. McAlpine, of Croydon, Vic., has written the appreciative article hereunder. Professor McAlpine was for many years Plant Pathologist at the Victorian Department of Agriculture. He is an author of world-wide fame on fungus diseases, his remarks will be noted with keen interest.

THE publication "Fungous diseases of fruit trees in N.Z. and their remedial treatment," as the author informs us in his preface, is the outcome of five years' continuous study, both in the field and in the laboratory, and the result is a work which in practical utility and fulness of treatment, is equal to anything which has hitherto been produced in this particular line of research. It is a guide to fruitgrowers in all that pertains to the fungus diseases attacking the commercial orchards of New Zealand, bearing the three major fruits—Pome, Stone and Citrus.

But while the diseases dealt with are found in New Zealand, they are by no means confined to that region, and to show their cosmopolitan nature, it may be mentioned that only one is endemic or confined to New Zealand, all the rest having been introduced from other countries. **So it is evident that the Australian fruitgrower has much to learn from this work as well as the New Zealander.**

There are several noteworthy features of the book which call for special mention, and it will be convenient to refer to them very briefly.

1. It is interesting to notice that a high scientific standard is mantained throughout, even although it is the orchardists themselves who have mainly suggested the scope of the work and the arrangement of the matter. It is one of those books in which the fruitgrower is really being taught the science of his subject without knowing it, and it is very characteristic that the book begins with a glossary, so that the technical terms met with are translated into plain English, and this bugbear is effectually disposed of.

The entire volume is an exemplification of the motto of the Royal Agricultural Society of England—"Practice with Science." So the practical operations in the orchards are rendered intelligible by means of their scientific explanation. Science and industry are becoming more closely linked together, and here the two are blended.

2. The botany of a living tree, such as the Apple, has a chapter all to itself. It is interesting to note that this chapter was written at the request of many growers who found a difficulty in obtaining the information wanted in a sufficiently simple form. It is quite true, as pointed out, that a knowledge of the structure and functions of a fruit tree are necessary for the proper understanding of its diseases, and the normal anatomy and physiology of a flowering plant, can be intelligently compared with the abnormal conditions which constitute disease.

Starting with a cell as the fundamental unit, the root, stem, leaf, flower, fruit and seed are successfully considered, and the conditions and results of vital activity in each case are clearly shown. It is a most important matter to impress upon the grower that a tree, like every other plant, is a living organism, and it is only when these living activities are properly understood that we can properly understand and appreciate the nature of the disease and the effect of the various remedies applied.

3. Since remedial treatment of the various diseases dealt with, constitutes an important part of this work, it is encouraging to note that such treatment is based upon actual experiments carried out in the orchards. It has been too often the case that the measures recommended were those employed in other countries, notably America, and there was no guarantee that the desired results would be obtained under the different conditions of soil and climate, heat and moisture.

This principle might be strongly recommended for adoption in Australia, where there is plenty of room for experiment in this direction. I entirely endorse the following statement regarding this method of experimentation:—"The great value of the present volume rests on the fact that it links up control with the life history of the organism studied under local conditions, and in this way represents an extremely notable contribution to the literature of plant Pathology."

4. There is a new feature introduced in this work which is turned to very useful account, viz., an artificial key to the various diseases. It is often of great advantage to the orchardist if he can determine for himself the name and nature of any disease which has attacked his trees. In many cases diseases, if early recognised, are more amenable to treatment in their early stages than if neglected for some time. Hence, if a simple means could be devised whereby the disease could be determined, it would be a great gain. To deal successfully with disease, it is necessary to know the exciting cause but the ordinary orchardist has not the means at his command to determine accurately the cause, so he falls back upon the symptoms, set up by the disease.

An Artificial Key to the Diseases has been devised by the author, based upon the symptoms, so that the observant orchardist may arrive at a rough and ready indication of the particular disease.

It only remains to be noted that the numerous illustrations, not only adorn, but explain, the text, and the naked eye characters of various diseases are clearly shown. A very extensive Bibliography and a combined Host and Fungus Index complete the work.

Such a book as this ought to be in the hands of every orchardist, since it not only begets a scientific interest in his work, but by intelligently following the instructions given, disease would be kept in check and profits consequently increased.

(Sgd.) D. McAlpine.

[This valuable book is obtainable in New Zealand from the Fruitgrowers' Federation at Wellington, and in Australia, from the Fruit World Pty. Ltd., 9 Queen-street, Melbourne, Vic. —See advt.]

# Red Spider: A Troublesome Orchard Pest.

## Methods for Fighting the Pest.

(By P. H. Thomas, Tasmanian Government Fruit Expert.)

OF late years the Red Spider has become rather troublesome in certain Tasmanian fruit districts. Unlike pests which destroy or render the fruits attacked unfit for marketing, the spider plays havoc among the fruit buds that are forming to produce next season's crop. The careless orchardist is apt to neglect treatment through not recognising the cause of failing production.

The Red Spider (Bryobia pratensis is generally found in colonies on the under-side of the foliage of the infested trees, and is more prevalent toward the autumn months. The small red globular eggs are bred in the crevices of the bark on the trunk and limbs of the trees during autumn. In cases of bad infestation these may almost entirely cover the bark, giving portions of the tree a reddish tinge. The young spiders commence to hatch out as soon as the spring foliage commences to appear, and in the first stage are light red in color. They change to more of a brownish tint as they reach the adult stage.

Unlike other species of spiders, Bryobia pratensis is a non web-spinning species, and moves freely about on the host plant, extracting the juices of the foliage upon which it exists.

In Tasmania the Red Spider is generally more prevalent in the early summer months, and it is noticeable that certain varieties of Apples are much more subject to infestation than others, particularly Dunn's or Munro's Favourite, London Pippin and Sturmer.

**The principal damage** wrought by this pest is confined to the foliage, the spiders puncturing the epidermis of the leaf and sucking out the sap and juices which it contains. This causes the foliage to become pale and yellowish in color, and very often a premature dropping will take place. When this occurs the fruit on the affected trees will remain small and ripening will be retarded.

Experimental work of investigating the life history of the Red Spider reveals a very curious and interesting trait. On different host plants the period of hatching of the overwintering egg varies according to the time when the tree commences to put forth its spring foliage. Thus it has been found that although eggs laid on the Almond and Plum will hatch out just after the tree comes into foliage, in the case of the Apple the development is delayed almost a month later, when the fruit is putting forth its first spring growth. It seems that nature has ordained some affinity between the host plant and the hatching period of the egg.

### Control Methods.

The Red Spider will easily spread over the orchard, and if left unchecked, will develop with extreme rapidity. Besides being distributed by winds, birds and other agencies, it is of an active disposition, and can easily leave a tree and establish itself on an adjacent one.

Control is most effectively carried out by **spraying with a miscible oil or lime sulphur solution,** making application in late winter just as the first sap movement is showing, and the buds are swelling. Such treatment will kill any newly-hatched spiders, and will also account for eggs which may not have developed.

Lime-Sulphur is perhaps the most favoured spray used in dealing with the pest, on account of its valuable fungicidal properties; also having its insecticidal value in the control of the spider, and enabling it to be used as a dual purpose spray.

In determining the strength necessary for eradication, the orchardist should take into consideration the question of the control of other insect pests, such as mussel scale, woolly aphis, etc. If any of these are present on the trees, although the Red Spider may be controlled with a weaker mixture, it will be an economy to apply at a strength that will be effectual for each pest.

Commercial Lime-Sulphur concentrate showing a 33 per cent. beaume test will give good results for the general purposes, when applied at a strength of one gallon concentrate to eight gallons of water.

If the spider is the only pest to be combated there is not the necessity for such a strong mixture and a good kill may be obtained by applying at a strength of 1-12 at the same test. Oil emulsion may be used with good results for the Red Spider, mixing at the proportion of one gallon of concentrate to 15 gallons of water. If intended for controlling scale or aphis also it should be reduced to a strength of 1-10.

Treatment, when the trees are in foliage, is rather difficult. The insects shelter on the under-side of the leaves and are protected somewhat against contact sprays.

In recent experiments I have carried out with the object of controlling powdery mildew (Podoesphaera oxyacantha) it has been noticeable that where atomic sulphur had been applied in early January, when the trees were in fruit and foliage (second application, 1-12) besides giving good results in clearing up this disease the Red Spider has also been practically eliminated. The efficacy of this spray lies in the fumes which are given off when applied, and no doubt this is the factor which was the means of destroying the Red Spider.

# Fighting the Codlin Moth.

## Need for Scientific Investigation in Australia.

## American and Australian Control Practices Reviewed.

(By Jas. H. Lang, Harcourt, Vic.)

THE most serious insect pest in the Apple and Pear growing districts of Victoria is undoubtedly the Codlin Moth. Although it has been in evidence for upwards of forty years, we have as yet no reliable life history of the insect, and without this it is impossible to effect control in the most efficient and economical manner.

Information to hand from Mr. J. H. Newton, of the State Entomological Field Station, Paonia, Colorado, U.S.A., together with several annual reports and Bulletin 268, of the Colorado Agricultural College, contain much information of value to the Apple growers in Australia.

Detailed life history studies have been made, and a complete record taken on 20,319 moths, and an egg deposition of 370,766. These numbers should be sufficiently large to give fairly reliable averages.

The moth begins to emerge about the time the trees are in bloom, and continues to emerge over a period of thirty to forty days. In a few days they commence to deposit their eggs on the upper surface of the leaves, and later in the season on the fruit. The eggs hatch in from 6 to 14 days, depending largely on the temperature. The feeding period of the first brood will average from 20 to 24 days. In Paonia laboratory, only 20 to 40 per cent. of the first brood larvae transform into moths; the remainder carry over as larvae until the following spring. In some districts the two broods are well separated, and in others they overlap. The average length of the different stages in the life of the insect were found to be:—

Pupation period of over-wintering larvae, 22 to 24 days.

Time of emergence until the first eggs are laid, 1 to 4 days.

Incubation period of first brood eggs, 6 to 9 days.

Feeding period of first brood larvae, 20 to 27 days.

Time after first brood larvae leave the Apples until second brood moths appear, 16 to 22 days.

Time of emergence until second brood eggs are laid, 1 to 2 days.

Incubation period of second brood eggs, 7 to 9 days.

Feeding period of second brood larvae, 27 to 35 days.

The periods vary from year to year, according to temperature and humidity. Egg deposition occurs largely during late afternoon and early evening, a drop in temperature or a rain at this time will materially affect egg laying. A cool change may have the effect of merely delaying the egg deposition, or if of extended duration, will greatly reduce the seasonal egg record. According to weather conditions, the life cycle of the insect has been found to vary in different years from 48 to 61 days. This will indicate the fallacy of attempting to spray by a schedule based on calendar dates. **No better investment could be made in any fruit growing district where the codlin moth is a problem, than to maintain a trained person to make observations and studies and recommendation as to spraying dates.**

For the benefit of those who have not expert advice, the following suggestions are made:—

**First Spray.**—Calyx, after blossoms fall and before calyx closes.

**Second Spray.**—First Cover. When the first brood larvae begin to enter the fruit, from 20 to 30 days after blossoms fall, according to the temperature.

**Third Spray.**—Second Cover. Ten to twelve days later.

**Fourth Spray.**—The most difficult sprays to time are those against the second brood. Bandages should be placed on a number of trees and examined daily for the appearance of mature larvae. Records show that the time from when larvae were collected until spraying was necessary, was from 32 to 42 days.

**Fifth Spray.**—16 to 20 days later.

Other methods of control recommended are:—

**Banding.**—The bands should be put on tightly, the ends being hooked over a headless nail. It is necessary to examine every 10 or 12 days as long as larvae continue transforming into moths.

**Picking** grubby Apples will also materially reduce the second brood, and fewer "stings" will result.

**Removing Loose Bark.**—It was found that over four times as many grubs were caught in bands on trees from which loose bark was scraped, compared with unscraped trees.

**Pruning.**—The tree should be so thinned that all portions are accessible, and can be sprayed on all sides.

**Thoroughness of Work.**—This is essential to attain best results. The outfit recommended is spray gun from the ground and angle nozzle from the top of spray tank, a pressure of 300 lbs., giving best results. Each tree should be sprayed from four points.

**Dust versus Spray.**—The cost of these was practically the same, but the spray gave 98 per cent. clean fruit, against 75 per cent. from dusting.

**Ovicides.**—Laboratory experiments were made to destroy the eggs prior to hatching, and so reduce the number of "stings" on the fruit. Of the materials tried, miscible oils and oil emulsions gave the most promise. Target brand oil 1-60 and 2 lbs. arsenate of lead to 100 gallons destroyed 97 per cent. of eggs, five tests being made. One per cent. Red Engine oil emulsion gave results of 99 per cent. in eight tests, the best result obtained with Black Leaf 40 was 44 per cent.

**Trapping Codlin Moths.**—Experiments were made with vinegar solutions, and also fermented Apple juice hung in containers in the trees. The main points proved being traps placed in the upper third of the trees catch a greater number of moths than those placed in the lower third. Fermented Apple juice is more attractive than vinegar solutions, and of vinegar solution 10 per cent. is as good as any.

In 1922, Mr. W. Froy, of Clifton, put out 900 glass jars filled with a 25 per cent. vinegar solution, and caught approximately 18,000 moths; similar results were obtained in 1923. No moths were caught after the first brood ended, whereas Apple juice solution will catch moths at any time during the season. Mr. W. P. Yetter, Junr., caught 2,775 moths, of which two-thirds were females, in 10 quart jars baited with Apple juice. The Apple juice solution is made as follows:—One box of Apples cut in quarters, and 4½ gallons of water: boil for one hour. Draw off liquid, and add 1½ lb. sugar. In 24 hours add 1½ yeast cakes or several rotten Apples and allow to stand until fermentation takes place. Add 25 per cent. of water before using.

### Victorian Conditions.

The above information shows the necessity of further investigation of the life history of the codlin moth in this State, and also gives a lead as to the lines on which experiments could be made.

Undoubtedly the best results would be obtained by setting apart a trained scientist for this work, but much could be done by the observation of the growers themselves. If the Fruitgrowers' Association would offer small

prizes to school children, who would bring in, say, the first moth, first grubby Apple, first grub out of Apple, first chrysalis, much valuable information would be obtained, besides interesting the coming fruitgrowers in the life history of the codlin moth.

with advantage. The idea of enclosing the bandage with wire gauze (12 meshes to the inch) to allow the grub to enter, but preventing the exit of the moth, was found in practice not to be worth the labour and expense involved.



Dish exhibits in Apple section at the recent Royal Show, Melbourne.

In the Harcourt district, many of the growers spray up to eight times with arsenate of lead. If equal results could be obtained with five or even six sprays, the saving in cost of material alone without counting labour involved would more than pay for the services of a man especially trained to advise as to time of application.

The control is complicated to some extent in most Apple growing districts by the fruit cases removed from the cool stores. Many such cases are kept in the store until December, and the moths emerging from the larvae in them constitute a special brood, about mid-way between the ordinary first and second. This can be overcome by storing these cases under such cover that the moth, on emerging, would be unable to find access to the orchard.

Ovicides have not been used to any extent as yet. About four years ago the writer experimented with Black Leaf 40, but with no appreciable results.

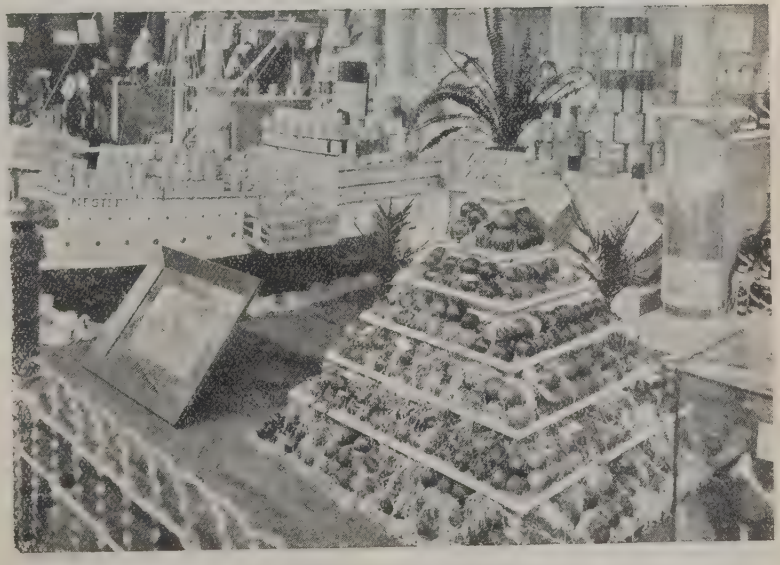
Scraping of trees and banding, which were both common practices 25 years ago, could still be employed

The natural enemies of the grub include a parasitic wasp which at present is not numerous enough to be of economic importance; also, it only comes into action after the grub leaves the Apple. A parasite on the moth or egg would be more advantageous.

Then there are certain of our insectivorous birds whose presence should be encouraged in the orchard—the various Tit Warblers, Gray Crowned Babbler (sometimes called the Codlin Moth Eater) and others. The writer has seen the Gray Magpie pulling the bandages from the trees in search of the grubs.

The trapping of the moth was tried a few years ago with a preparation known as Frenler, but the results were not up to expectation. There is still much room for investigation here, and experiments with Apple juice and vinegar could be carried out during the coming season.

Though much success has been attained in the past in combating the codlin moth, owing chiefly to improved spray mixtures and motor pumps, the results in a season naturally favorable to its development are not always satisfactory. It is only by a closer study of its life history, the proper using of spray application, thoroughness in all details, and using every endeavour to destroy the insect at all stages that the best results can be achieved.



Warrnambool (Vic.) District exhibit at Royal Show, Melbourne.

## Cold Storage of Apples.

### What is the Best Temperature?

At the recent conference of the Fruitgrowers' Cool Stores' Association of Victoria, Mr. H. L. Tompkins, of Kilsyth, stated that at the Croydon Cool Stores success was attained in the storage of Apples at higher temperatures than are usually recommended.

Following are the details:—

For the first month the temperature was never brought below 38 deg. F., and allowed to rise during overnight stop as high as 45 deg. to 46 deg.

During the second month the temperature was brought down to 35 deg. F., the rise then was up to 40 deg. F.

During the third month the temperature was gradually reduced to 32 deg. F., and the rise was then to 34 deg. F.

This experiment, stated Mr. Tompkins, seems to have agreed with earlier tests, and should be well worth a trial for other seasons, as we are getting very few Apples soft, and no sign of scald. Big Jonathans have kept better under these conditions than they have kept at even lower temperatures in previous years.

Whether this is due to climatic conditions or to these temperatures, only further tests will prove.

* * *

Other cold storage delegates gave their experiences, and, while admitting that running at the higher temperatures would reduce costs, expressed the opinion that temperatures ranging about 32 degrees F. were best year in and year out.

Mr. Tompkins was thanked for the information supplied, and Conference recommended a continuance of the experiments, and a report the following season.

## NEW HYBRID FRUIT.

### Cross Between Raspberry and Blackberry.

Fruitgrowers will be interested to learn that a new berry known as the "Veitchberry" has been raised by crossing the November Abundance Raspberry by a Blackberry. It is claimed by Messrs. Laxton Bros., of Bedford, England (the raisers) as being the best of all the berries yet raised, being of a delicious flavor, and having the characteristics of both its parents. A great advantage is that it is self-fertile, and sets all its fruits perfectly—and it does not need to be planted near any other berries to cross-pollinate it. It is a strong grower, semi-erect, and needs only a stake to support it. Its period of ripening is after the Raspberries are over, and before the Blackberries are ripe.

Mr. Weitnauer, Batesford, Geelong, stated that he greatly enjoyed the September "Fruit World." The practical experiences of growers regarding spraying were of the greatest value.

Take short views of life. Every substantial grief has twenty shadows, most of them of our own making.

## NUT CULTURE.

### The Filbert Should Be More Largely Grown.

The value of nut culture was emphasised recently by Mr. W. Tilling, Manager of the Govt. Type Orchard at Mylor, South Australia. Mr. Tilling said the Filbert or hazel nut, which was known commercially as the Barcelona nut, had been cultivated in Europe for centuries. The wood, though small, was valuable, and was used for making baskets, sheep hurdles, walking sticks, tool handles, etc.

Many places in the Adelaide Hills were suitable for growing the nuts commercially. They required fairly good, well-drained soil. The best

**method of propagation**

was to take the side shoots from the parent tree. Those were rooted, and could be started by layering.

In planting the nuts, it was advisable to graft. The nuts grew on the new wood, so that it was necessary to prune, cutting the canes right down to the ground. The flowers were self-fertilising; the male flowers grew above the female buds; they were very distinct.

The nuts were good food, especially for children, and large quantities were imported for use in the manufacture of sweets.

The following varieties were recommended.—Tollona, Webb's Cob, Cob Nut, Imperial Trebizone, Red Filbert, Imperatrice Eugunie, and Garibaldi. Mr. Tilling tabled samples of those mentioned, and others.




Australia recently sold 140,000 cases of Canned Fruits to English buyers. One of the trucks which transported the fruit from Kyabram, Vic.

# New Zealand Fruit Control.

## Synopsis of Act.

Apples and Pears Only Included.

An Act of Parliament was recently passed in New Zealand dealing with New Zealand fruit. A correspondent at Auckland has furnished the synopsis hereunder:—

The Act is divided into four parts. Part 1 deals with the control of export of fruit; part 2 with control of fruit for local consumption; part 3 with levy on fruit; and part 4, general provisions.

The word fruit applies only to Apples and Pears.

**Part 1. Control of Export of Fruit**—This part of the Act is not operative until brought into force by proclamation, and only then after a proposal to that effect has been carried at a poll of producers entitled to vote.

A producer entitled to vote is an occupier of an orchard from which at least 100 cases of fruit—the produce of that orchard—were exported the previous export season, viz., 1924, and such poll shall be carried by a bare majority.

Inasmuch as the Dominion is divided into four districts, two in the North Island and two in the South, and the poll is a Dominion-wide one, power is given to the producers of any district to be excluded from control, on petition signed by at least 70 per cent. of the voters in that district.

The Board set up under the Act consists of seven members, two of which are appointed by the Governor-General and hold office during his pleasure; the other five members are elected from the four districts; the Nelson district has two and the others one each. Of the first Board, two members retire in 1925, two in 1926, and one in 1927. The retiring members, on re-election, or those elected in their stead, hold office for three years.

The Board is empowered to assume absolute or limited control of any fruit intended for export, and where it assumes absolute control all fruit for export must be graded, packed and shipped as the Board directs, and must be sold and disposed of only by the Board or by direction of the Board at such times, in such manner, and on such terms as the Board, in its discretion determines. Where the Board has assumed limited control, the extent of such control shall be defined by notice given or advertised. In addition to the above-mentioned powers the Board has also full authority to make arrangements for and give directions for:—Storage of fruit pending shipment, the shipment of fruit, insurance thereon in N.Z., or in transit, display of fruit at Exhibitions and generally for all matters necessary for the discharge of its functions. Also, the Board can, on behalf of the owners of any fruit, give security over it for the purpose of securing any advances made to the Board or to the owners of such fruit.

Power is also given the Board to appoint overseas agents. No contract for the carriage of fruit overseas can be made by any exporter, but all such contracts shall be made by the Board acting as agents for the owners of fruit.

**Part 2. Control of Fruit intended for local consumption.**

As in Part 1, this part of the Act is not operative until brought into force by proclamation, and after a poll has been carried. The poll in this case is taken separately in each of the four districts, and can be carried in one or more or rejected in one or more; in fact, district local option. The qualification for a voter is—a producer carrying on business as such within the district to which the poll relates, and the occupier of an orchard containing not less than 120 trees.

But no such poll shall be deemed to be carried unless 60 per cent. of the producers entitled to vote have recorded their votes in favor thereof. (N.B.—Not 60 per cent. of those who vote, but 60 per cent. of those on the roll.)

If a poll is rejected, a new poll can be taken after a petition has been presented, signed by at least 10 per cent. of the producers in the district.

The Board set up for each or any district consists of three members elected by producers holding the necessary qualifications, and no member of a Board remains in office longer than three years without re-election.

Two or more local control boards may combine and form a Board for combined districts.

The powers given to the export Control Board, as previously summarised, apply where applicable to local Control Boards.

Any local Control Board can be disestablished on the majority vote recorded at a poll taken for that purpose.

**Part 3. Levy on Fruit.**—A levy up to 3d. a bushel case may be made by the export or any local Control Board, and will form the funds necessary for the payment of Board members, their travelling expenses, clerical, office and other necessary disbursements, but any sum paid by a producer by way of levy shall be deducted from the amount payable by him in the next succeeding year by way of orchard tax. (Note the amount payable each year for orchard tax is 1/- per acre).

**Part 4. General.**—This deals only with the necessary machinery for the operation of the Act.



*Illustrations by Courtesy. Vic. Railways Magazine.*

Train load of 25,000 cases of Canned Fruit — Peaches, Pears, Apricots — from Kyabram for England.

# New Zealand.

Seasonable Notes. ∴ Items of Interest.

(By Avro.)

## THE MONTH'S WORK.

**November 20th—December 20th.**

THE time is now approaching when the earlier varieties of stone fruit will be ready to be placed on the market, and growers who wish to receive the best prices will take care that their pack is an attractive one. As competition grows keener each season, greater importance attaches to the pack, and the man who sends forward a nice even line is the one who will receive the best returns. The desire to get the fruit on the market early and get the high prices, leads many growers to place immature fruit in the cases, but this practice cannot be too strongly condemned. It will always pay growers to pack choice eating Peaches in trays, buyers usually being keen for good lines of this nature.

A very careful watch should be kept for brown rot, especially in those districts in the North Island, where the trouble was so bad last year, and trees should be sprayed with lime-sulphur 1-125, plus about 5 lb. of atomic sulphur. A careful watch should also be kept for black spot in Apples and Pears, and spraying operations carried out where this is noticed.

Cultivation in the orchard should be carried out right up to the New Year, after which very little will be required, provided the previous cultivation has been done in the proper manner. A watch for the fungoid diseases must be kept in the citrus groves, and bordeaux applied at a strength of 4-4-40.

Strawberries will be coming on to the market in some districts during the month, especially in Auckland, and growers should be careful to see that they have complied with the regulations which were gazetted last year.

### In the Garden.

At this period of the year, when warm weather is being generally experienced, it is necessary to keep a sharp look-out for caterpillars of all kinds, especially when the weather is dry. A spray of arsenate of lead will effectively deal with any of these pests, which may become troublesome.

Celery and Leeks can be planted out as soon as the ground is prepared, both these requiring to be trenched. Tomatoes, which have been grown under glass, will now be ready for sale, and these should be carefully graded and packed so as to open up attractively when they reach the sale room.

## THE APHELINUS MALI.

### A Wonderful Parasite.

If a question were asked as to the most interesting event in connection with fruitgrowing in New Zealand during the past few years, the answer would undoubtedly be the introduction of the aphelinus mali, and the resultant cleaning up of the woolly aphis in the orchards of the Dominion. The history of this little parasite in New Zealand is one of the romances of modern fruitgrowing, and once again proves the practical value of applied science in modern farming methods. Fruitgrowers were apt to look askance at the Cawthron Institute when it first commenced its work of investigation in New Zealand, but now they are convinced of its value, and recently the Federation, representing the growers of the Dominion, made a substantial donation to the Institute as a small recognition of its service to the industry.

Four years ago the first of the parasites were brought to New Zealand from America, and although great difficulties were experienced in hatching these out, their increase has been so rapid, and their work so thorough, that the Institute has now ceased from hatching and distributing, and turned its attention to other matters affecting the welfare of various branches of farming.

Dr. Tillyard, entomologist to the Cawthron Institute, recently gave a very interesting summary of the work in connection with the parasite, and the difficulties experienced in rearing the first consignment which arrived in New Zealand in 1921. Only eighteen were reared from the twigs which came from America, but by careful handling these were increased to 130 during the following summer. A bad winter followed, and the number was reduced to six, these being the ancestors of the millions of aphelinus which are now scattered throughout New Zealand. It was touch and go when the six aphelinus were recovered after the bad winter, and had any late frosts been experienced, there might now have been no aphelinus in the Dominion.

The aphelinus has been distributed to the majority of the orchard districts of New Zealand, and its spread has been rapid. It has succeeded in handling the woolly aphis in a wonderful manner, and in orchards where growers spent pounds every year in ineffectual attempts to eradicate the woolly aphis, none is now to be seen. Cases are on record where growers have spent as much as £20 in sprays for the control of woolly aphis, and wasted much time in the work of application, and where, some few weeks later, the woolly aphis was just as bad as ever. These conditions are rapidly vanishing, and although a great deal of aphis is still to be found in parts of the Dominion, it is gradually disappearing. In practically every district there are growers with the parasite in their orchards, and from them other growers can obtain cuttings from which the parasites will hatch out. The aphelinus soon spreads throughout the orchard, and cases are known where it has flown more than a mile from one orchard to another.

Some orchardists imagine that the aphelinus has also acted as a parasite in connection with the mealy bug, but this theory has been discounted by Dr. Tillyard, whose theory is that previously the mealy bug in the spring made use of the cover afforded by the woolly aphis secretion. Now that the woolly aphis had been abolished, this cover was not available, and many of the mealy bugs would not ascend the trees, and therefore perished for lack of food. The aphelinus did not actually parasitise them, but had indirectly assisted in their control.

## SOUTH AMERICAN MARKET.

### Risk of Embargo.

General dissatisfaction exists amongst fruit exporters over the unsatisfactory state of affairs connected with the South American market, for unofficial advice received by the Fruitgrowers' Federation is to the effect that after December 31 the Argentine Government intends to prohibit the importation of Apples from New Zealand. Up to the present no reason has been given as to why this prohibition is to be enforced, but it seems as if American growers have combined and used influence to prevent New Zealand gaining a hold on the market there. Last season, when the question of prohibiting New Zealand fruit was under discussion there, it was stated that there was fruit fly in the Dominion, but the Government has since given an assurance that

such is not the case, and this reason cannot therefore be advanced this year.

The news is by no means welcome to shippers, for the South American markets absorbs over-sized Apples which are not acceptable in London, and for this reason forms a most useful addition to the existing markets for the disposal of the New Zealand fruit. The prices realised for the shipments that were made to South America this year were good, and it is extremely unfortunate that the present action is being taken. A shipment of Delicious Apples made 21/3 c.i.f. Monte Video, while other varieties made 17/3 on a similar basis. The f.o.b. price from New Zealand ports therefore works out at approximately 17/1 for Delicious, and 13/1 for the other varieties.

The market which has now been opened up would prove of especial value to growers in the North Island, where the larger Apples, less suitable to the English market, are extensively grown, and it is certain that these will fight hard to have the unfair prohibition removed.

## ORCHARDISTS' FIELD DAYS.

### A Growing Movement.

Any farmer working under modern methods is prepared to admit that he may learn much from his neighbor, and throughout the Dominion there is a growing tendency for fruitgrowers to meet together and discuss the problems affecting the industry, both in the orchard, and in connection with the problems of marketing. There is no doubt that these gatherings have been productive of much good, for men who are recognised as experts in certain branches of fruitgrowing, give others the benefit of their specialised knowledge.

Members of the Hawke's Bay Fruitgrowers' Association recently met at one of the big commercial orchards, and addresses were given by various members, the subject being "Lessons of the Past Season."

Mr. E. S. French dealt with the question of **cultivation**, saying that he had had a tractor for a year, and had found it eminently suited for orchard work. Instead of always being behind with his work, he now found that he was always well up to his programme. His own experience had been that **the tractor was economical and efficient in every way.**

**The thinning of the pip fruit** was the subject chosen by Mr. J. H. Milne, the speaker saying that he considered this to be next in importance to spraying. While there were some varieties which thinned themselves, Winter Cole Pears, Sturmer and Dougherty Apples, presented problems every year, and thinning was an absolute necessity. Last year he had been somewhat misled by the weather conditions, and a similar experience had befallen other growers.

Mr. C. H. Slater, who spoke regarding the **marketing of fruit**, said that one very necessary reform was in connection with the grading of fruit offered for sale. There should be a minimum commercial grade below which no fruit should be sold. He also considered that they should adopt some marketing scheme whereby growers would always be assured of receiving a certain minimum price for the commercial qualities. He thought such a scheme could be successfully launched, and offered to give any assistance in his power.

Mr. Ralph Paynter, President of the Association, said that the most important operation of all was that of spraying the trees. Whenever rain was experienced, the trees should be examined, and if the spray had been washed off, more should be applied. Much of the trouble in Hawke's Bay last November had been due to the neglect of spraying operations.

The final subject dealt with, but by no means the least important, was that of **keeping accurate records** during the season, Mr. J. P. Boyle being the speaker. By means of diagrams, Mr. Boyle showed the best methods for keeping the spraying calendar and the record of fruit sold.

In view of the undoubted success of the gathering, it is likely that similar field days will become a regular feature in the district, members being enthusiastic in their praise of the benefits attendant upon the scheme.

## MAIZE PRODUCTION.

In a great many orchards, especially throughout the Poverty Bay and Auckland districts, growers add to their incomes by growing a quantity of maize, and many of the commercial orchardists every year put down a few acres in this useful crop.

## EXPORT COMPETITION.

### Useful Show Feature.

A novel competition was held at the Spring Flower Show at Gisborne this year, for the purpose of assisting growers in becoming conversant with the requirements of cool storage, and the various factors which enter into that important question.

Five months before the Show, entries were taken, and growers were required to place three cases of Apples in the cool store, these to consist of a case of Doughertys, a case of Sturmers, and a case of any other variety. Practically all the commercial growers in the district entered, with the result that there was a very fine display.

The competition was the first of its kind ever held in the Dominion, and in view of its outstanding success it is very probable that further competitions of a similar nature will be held elsewhere.

Apart from the set varieties, the most popular variety was the Ballarat seedling, practically every grower including this in his exhibit as the third variety. The variety which is a very popular one in the district was first brought to Gisborne about fifty years ago by Mr. Bull, who came from Ballarat. It is rather on the large size for the Home market, although a trial shipment of 50 cases made two years ago, brought good prices.

One grower scooped the pool, and took all four prizes, this being due to the careful picking and grading of his exhibit. Several notable weaknesses were disclosed, the principal one being the lack of care in grading. It was also apparent that many of the growers did not take sufficient care with their picking, some of the Ballarats showing punctures caused by careless handling. Growers were also inclined to favor the larger Apples, and as the exhibits were judged on a commercial basis, this told against them.

The present season is the second during which the cool store has been operating, and the results are therefore remarkably good when one considers that growers have previously had no experience whatever of grading for export or picking for cool storage. During the coming season Poverty Bay will be entering the export field and the lessons gained from the competition will enable growers to go ahead with a greater feeling of confidence.

**Control of the codlin moth** by baiting tin traps with fermented Apple juice is to be attempted in some of the Nelson orchards this year, the suggestion having emanated from Dr. Tillyard, entomologist to the Cawthron Institute. In recommending the trial, Dr. Tillyard said that while the spraying programme was a good one, it missed one essential point, this being that throughout the season, in addition to the two well marked broods, there was a continuous suc-

cession of individuals, which were largely responsible for the trouble. After recommending the tin traps with fermented Apple juice bait, Dr. Tillyard said that it was quite on the cards that this bait would also prove very attractive to the bronze beetle, and might offer a satisfactory method of control.

**Useful Birds.**—The necessity for having a broad policy for the control of insect pests has been stressed by officers of the Cawthron Institute, who say that had scientific selection been made of the birds introduced into New Zealand in the last fifty years, the problem would have been much more simple than it is to-day. Dr. Tillyard considers that there are two Australian birds which should be introduced into New Zealand, these being the Tasmanian blue wren and the Peewit, both of which were extremely useful in controlling various insect pests.

## WHANGAREI AND HUAPAI.

Writing under date 24th August, Mr. L. Hanlon, of Whangarei, N.Z., gives the following report re spraying operations:—

**Citrus Orchard.** — The steel-blue ladybird has done away with spraying for all scale pests. For Varicosus and Brown Rot, Bordeaux 6.4.40 is applied when required.

**Peach Orchard.**—Bordeaux 6.4.40 as late as possible for Curl.

**Apples and Pears.**—For Red Mite eggs and Black Spot, late dormant—spray Bordeaux 6.4.40, followed by Red Oil, 1-15; open cluster 6.4.40 Bordeaux; petal fall for Codlin Moth, Black Spot and Hatching Mite, Arsenate of Lead, 1½ lb. powder and Spreader per 100 gallons, also Lime-Sulphur 1 in 100. Three further applications of same at intervals until towards the end of January.

**Manuring.**

**For Citrus.**—Superphosphate, 44-46 per cent., 5 to 6 lb. per tree early spring, 2 to 3 lb. Nitrate of Soda at intervals of 4 months. Occasionally a light dressing Sulphate of Potash.

**Peaches and Stone Fruit.**—Superphosphate, 5 cwt. per acre early spring.

**Apples and Pears.**—A prepared orchard manure, 5 cwt. per acre.

**Huapai (a Maori word meaning "good fruit").**

When the Huapai community fruit settlement of 5,000 acres was started some ten years ago, many said it was hopeless to attempt to grow Apple orchards on such barren, bleak Kauri gum land. However, the promoters, who had had experience of such land, pushed ahead, and about 200 settlers purchased sections of from 12 to 30 acres. These, when desired, were planted and maintained for five years by the company. This scheme was a great help to many who were not prepared to at once make a home on their section. Plenty of shelter was planted, and now high winds are not felt much.

To-day, after 10 years, in spite of many drawbacks arising from the Great War, Huapai is an undoubted success, and Huapai Apples are making quite a name for themselves for their beautiful color, good flavor and long keeping qualities. The trees are not large, but are sturdy, well-shaped and bearing heavily, many producing four bushels a tree. The chief varieties grown are Gravenstein, Willie Sharp, Jonathan, Cox's Orange, Delicious, Munro, Dougherty and Granny Smith.

Huapai is ideally situated, being only 26 miles from Auckland city, on the northern line, which runs through the settlement, and there are three stations available—Kumen, Huapai and Waimauku. There are now many comfortable and pretty homesteads in the settlement, and every year more are built. In another year or so, electricity will be available for all light, cooking and power.

"What I must do alone concerns me, not what other people think."—Emerson.

## NEW APPLE, "ELSIE GRANT."

The following is an extract of a letter from Mr. John Jenkins, Fruit and Produce Merchant, Sydney, dated 8th September, 1925, to Mr. T. H. Grant, of Pakenham, Vic., raiser of the "Elsie Grant" variety, a cross between Rokewood and Yates:—

"We are particularly happy to advise that this Apple held remarkably well in cool store, maintaining its freshness and firmness and bright color. The buyer who purchased them repacked several of them to test, as it is generally necessary to do with Apples ex cool store, and came to us and gave us his appreciation in undoubted terms of praise of this Apple. He said that it is the best line of Apple that it has been his fortune to handle, and out of several cases which he repacked he did not find one faulty Apple. This undoubtedly is a remarkable record. We specially appreciate this from this particular buyer, as he is one of the soundest and largest operators in N.S.W. country and shipping trade.

"We know that you are keenly interested in this Apple, being developed by your family, and therefore find pleasure in being able to give you the foregoing information."




Whittlesea (Vic.) District Exhibit at Melbourne Royal Show.



# THE "Sunraysed" Courier



**COMMONWEALTH DRIED FRUITS CONTROL BOARD.**

**Commercial Representatives:**
A. F. Bell, E. S. Whitehead.

**Government Nominee:**
W. C. F. Thomas (Chairman).

**Growers' Representatives:**
J. J. S. Scouler, Red Cliffs, Vic.
H. D. Howie, Renmark, S. Aust.
A. L. Johnston, Mildura, Vic.
A. Yeates, Millendon, W.A.
Secretary—R. Marx.

**VICTORIAN DRIED FRUITS BOARD.**

**Commercial Representative:**
J. M. Balfour (Chairman).

**Government Nominee:**
E. Meeking.

**Growers' Representatives:**
Jas. Milne, Red Cliffs.
E. T. Henderson, Mildura.
A. Lochhead, Irymple.
Secretary—A. D. Brown.

**SOUTH AUSTRALIAN DRIED FRUITS BOARD.**

**Commercial Representaaives:**
L. N. Salter (Chairman).

**Government Nominee:**
G. A. W. Pope.

**Growers' Representatives:**
H. D. Howie, Renmark.
H. G. Evans, Renmark.
H. Kay, McLaren Vale.

**Secretary:**
W. N. Twiss.

**AUSTRALIAN DRIED FRUITS ASSOCIATION.**

**Board of Management.**

H. D. Howie, Renmark.
T. C. Rawlings, Mildura.
J. B. Murdoch, Waikerie.
J. Gent, Nyah.
G. Kitchen-Kerr, Red Cliffs.
General Secretary—W. N. Sumner.
South Australian Secretary—T. Stan. Oldham.

**Manager for United Kingdom:**
W. P. Caro.

## A.D.F.A. AND PUBLICITY.

### Displays at Country Shows.

Prospective consumers of dried fruits in country districts are being given the opportunity to "taste and try and then to buy" dried fruits and dried fruit preparations, through a rather novel medium.

An artistically decorated motor waggon is touring country districts, following an itinerary that will include as many of the country shows as possible. The sides of the waggon when lowered reveal an attractive display of dried fruits similar to what may be seen in a suburban grocer's window.

A salesman in charge gives brief talks on Raisins, their health value and uses, and sales are made principally of the 3d. cartons and sample bottles of a number of Raisin preparations, which are becoming deservedly popular.

A start was made at Charlton recently, and the results are reported to have been excellent.

Mr. R. M. Eldridge, of Red Cliffs (a soldier grower) is the salesman-demonstrator in charge of the display.

* * *

## DUNEDIN AND SOUTH SEAS EXHIBITION.

### Displays and Propaganda.

The big Exhibition that opens at Dunedin, N.Z., in November, presents a rare opportunity for Australian dried fruitgrowers to bring their products before the Dominion's traders and consumers.

Those in control of the industry here have determined to make the most of the opportunity, as it is realised that a considerable increase in the dried fruit trade with New Zealand is possible.

Adequate arrangements are in train for a representative display of all varieties as well as the sale of popular cartonned lines and dried fruit preparations. Thousands of illustrated pamphlets, with a special appeal to New Zealanders, and in which the virtues and food value of Raisins are also stressed, are to be distributed.

The fruit and other requisites to make an attractive display left on the 27th of October, and it is expected that much good will accrue from the efforts being made during the Exhibition.

Being an export matter, the arrangements are in the hands of the Commonwealth Dried Fruits Control Board.

* * *

## CANADA AND DRIED FRUITS.

### Market to be Tested.

Although the delay in the completion of the details of the Reciprocity Tariff with Canada has prevented its coming into operation as early as might have been anticipated, the Commonwealth Dried Fruits Board has received many applications for representation of Australian dried fruit in Canada.

With a view to testing the market through a well established Canadian firm, the Board has decided to approve of licenses to export test shipments of two and three Crown Currants in parcels of not less than ten tons in any one grade.

This fruit will, of course, be only approved fruit, and, for this trial, only Currants have been selected, as the exportable surplus of Sultanas has already been shipped almost entirely to Great Britain, where splendid prices are being maintained.

The policy of the Board, we are informed in regard to representation in Canada for the forthcoming season has not yet been finally determined, but every effort is being made to complete arrangements of a satisfactory nature prior to the opening of the 1926 season.

* * *

### Marketing of Dried Fruits in Australia.

The time of the year is approaching when many growers of dried vine fruits will be considering the selling of the Commonwealth Retention of their 1926 crop of fruit, and it is well therefore to point out some features which should be of considerable interest to all growers.

First of all, when considering the question each grower should remember that it is more than probable that 80 per cent. of the fruit he grows will have to be exported, therefore,

a grower will only have 20 per cent. to sell in the Commonwealth.

On the export quota the grower will find that any firm he approaches will only sell on a commission basis on the grower's account. Owing to the uncertainty of prices to be obtained on the London market no firm will undertake to buy the fruit straight-out, but on the protected and controlled market for dried fruit in Australia there are some agents going about who will offer the grower a price which will leave the dealer a handsome profit.

Under the present control system whereby a grower can only sell the same proportion of his fruit in Australia as all other growers, a man who sells at prices below that returned to the grower by organised selling is simply selling against himself. He certainly may sell his fruit a little quicker but that is all, the other grower must eventually sell just the same proportion of his production as the price breaker does.

To those growers who may not know the prices obtained for their fruit by those remaining in the organised marketing methods, it may be advisable to set out, for their information, the prices which organised marketing has returned to the packing shed for their fruit. From these figures the grower can deduct the packing expenses charged by his shed, and the cost of transport to the seaboard, and he can then see if the prices offerred by the dealers or speculators are equal to that which would be returned by organised marketing.

The prices are as follows:—

| | | | | |
|---|---|---|---|---|
| Sultanas—4 crown | £77 | 4 | 4 |
| 3 crown | 69 | 7 | 4 |
| 2 crown | 65 | 8 | 11 |
| 1 crown | 61 | 10 | 5 |
| Currants—4 crown | £65 | 8 | 11 |
| 3 crown | 53 | 13 | 5 |
| 2 crown | 49 | 14 | 11 |
| 1 crown | 45 | 16 | 5 |
| M.F. | 37 | 19 | 6 |
| Lexias—5 crown | £53 | 13 | 5 |
| 4 crown | 49 | 14 | 11 |
| 3 & 2 crown | 37 | 19 | 6 |
| Seedless | 45 | 16 | 5 |

Deduct from the above the cost of packing and transport to dealers store, and you will find the price that organised selling is giving for the fruit, and any grower who sells at under that figure is simply losing good money, and of course this no grower can afford to do at the present time.

As mentioned before 80 per cent. of the fruit this coming season will have to be exported, and as the price to be obtained from this is uncertain, and no dealer will buy it direct but only as an agent selling on commission, and thus leaving all risk of price in the hands of the grower, why part with your 20 per cent. for cash unless the price given is the same as that obtained by organised selling.

Naturally, as the official publication of the organised growers, this paper would like to see all growers organised growers, but puts out the above information for all growers in the hope that it will show them that as there is no gain to be made, therefore, it is not to their interest to sell at below the organised selling price.

"Australian Dried Fruit News"




(Illustration by courtesy of the "Australian Dried Fruit News.")

THE BENEFIT OF ORGANIZATION. THE A.D.F.A. DRIED FRUITS AT WEMBLEY—1925.

A particularly handsome demonstration stand, where visitors could learn the best methods of preparing dried fruits for the table.

## DRIED FRUIT WEEK IN SOUTH AUSTRALIA.

### Grocers' Splendid Response.

Dried Fruit Week has come and gone, but its effects are still in evidence.

Some weeks ago the S.A. Dried Fruits Board decided to make an effort to increase the sales of Dried Fruits in S.A. The Federation of Retail Grocers' Associations in Australia, at their last Annual Conference, had pledged itself to support in any way possible any movement to increase the sales of Dried Fruits, and Mr. W. F. McConnell, Secretary of the Retail Grocers' Association of S.A. offered, on behalf of his Association, its hearty support. A committee was formed comprising:—



Method of Drying Vine Fruits on Rocks and Trays in Irrigation Areas.



This is one of the Well Dressed Windows at Adelaide's recent highly successful Dried Fruit Week.
(W. Lomman's Shop, Parade, Norwood. Much Dried Fruit was sold.)

Mr. G. A. W. Pope (Deputy Chairman of the Dried Fruits Board), representing that body; Mr. R. A. Haynes, representing the Wholesale Grocers' Association of S.A.; Mr. T. Stan. Oldham, representing the Australian Dried Fruits' Association; Mr. C. E. Russell, representing the Dried Fruit Traders' Association; Mr. W. F. McConnell, representing the Retail Grocers' Association of S.A.; Mr. W. N. Twiss (Secretary of the Dried Fruits Board), as Secretary of the Committee.

At the first meeting of the committee, various suggestions were considered. Mr. McConnell pledged the fullest support from his Association, and outlined a proposed scheme for window displays, of posters, showcards, etc., and Dried Fruits, and for the distribution of literature through the grocers to their customers.



This shows the method of dipping Vine Fruits in boiling lye. The cold dip is now replacing this.

At a later meeting this scheme was adopted, and Mr. McConnell undertook to organise the retail grocers for carrying it into effect. He estimated that at least 50 grocers in the metropolitan area would dress their windows. He circularised all the grocers with a view to enlisting their co-operation, and the response met with was astounding. It is estimated that about 250 grocers in the metropolitan area

**exhibited Dried Fruits**

and posters in their windows, and distributed leaflets, recipe books, etc., during the week, which commenced on September 28, and finished on October 3.

There were something like 150 displays of Dried Fruit made by country grocers, and it was estimated that about 500 in all made displays of show cards, etc. About 2,400 posters were distributed among the grocers, and at least 2,000 were put up. There were also about 125,000 small 8-page pamphlets distributed urging the public to eat Dried Fruits, and containing a number of useful recipes.

The bakers and cafes were organised, and made a push with Raisin Bread—several of the latter making Dried Fruit preparations a feature of the menu during the week.

Considerable newspaper advertising was done during the week preceding Fruit Week, and continued through that week. Very full press notices were obtained in the news columns of the Adelaide dailies and references in country papers also.

On September 29 a short tour was made through the city and some of the nearer suburbs for an inspection of windows. The party included the Hon. the Premier (Hon. J. Gunn), the members of the Dried Fruit Week Publicity Committee, Messrs. G. W. Pope (chairman), T. S. Oldham (secretary of the A.D.F.A.), C. E. Russell (a member of the Dried Fruit Traders' Association), R. A. Haynes (representing the Wholesale Grocers' Association), W. F. McConnell (secretary of the Retail Grocers' Association), and Messrs. H. D. Howie (Chairman of the A.D.F.A.), H. Kay (a member of the Dried Fruits Board), and D. F. Brazel (Chairman of the Adelaide A.D.F.A.). The Minister of Agriculture (Hon. T. Butterfield), by whom the Dried Fruits Act is administered, was expected to accompany the party, but was unable to reach the city on his return from Melbourne in time to join the Premier.

The party was keenly interested in the displays—some of which were very fine—and all were convinced that the result of the effort would be productive of increased sales. Evidence of the anticipation of larger sales was found in the fact that a number of the grocers had placed unusually large orders with the wholesale houses.

It is too early yet to form anything like an estimate of the immediate results, but a number of grocers testify to largely increased turnover during that week, some of them having more than trebled their usual sales. Many of the window displays will remain in for three or four weeks, which will doubtless maintain an increase in sales during that period. The distribution of pamphlets, recipe books, etc., should also have a lasting effect on the demand for Dried Fruits.

Much interest was created by the broadcasting in the evenings of talks on Dried Fruits—the Premier inaugurating this. Mr. E. J. Hume very generously placed at the disposal of the Committee for a period each evening the service of his broadcasting station, and of his staff. This very valuable contribution was much appreciated.

The A.D.F.A. distributed about 4,500 recipe books and some thousands of pamphlets, show cards, etc., and had a number of windows tastefully dressed with show trays of fruit and trade cases.

Mr. McConnell's organisation was all that could be desired, and great credit is also due to Messrs. Pope and Haynes, who worked very hard to achieve success.—"Australian Dried Fruit News."

## THE INFLUENCE OF SMYRNA'S SHORT CROP IN SULTANAS.

Although it is claimed in certain quarters that the high prices being obtained for Sultanas are due to the better selling organisation obtaining in London, there can be little doubt that the short crop reported in Smyrna is making its influence felt.

Buyers are very responsive to these fluctuations, and invariably safeguard themselves against possible shortage later in the season, thus making competition keener for the fruit available, with a resultant rise in the general price averages.

While the outlook for Sultanas is good, growers should not for one moment accept the present position as any indication that it will be so again next year.

Every effort that is humanly possible, should be earnestly put forth to keep up the standards and strive to make the grading of still higher average than which the present wide range of prices indicates is possible.

## CURRANT AND LEXIA RETURNS FOR 1925.

THE slow rate of selling and the low prices being received for Currants on the export market have occasioned a great deal of hardship in growing areas. Although 35 per cent. of the 1925 crop was retained for the Commonwealth market, it does not look as if this amount will be disposed of. As the Currants are not of a high quality, it would appear to be very inadvisable to carry over stocks into next season.

It is understood that the Export Control Board are prepared to allow shipment to Canada of good quality fruit only; no doubt this is a wise decision, but it makes the problem of where to dispose of the surplus a very difficult one. Shipments of the better grades of this fruit are still being made to London, but stocks of M.F. grade still remain in agents' hands.

The Lexia market in London, although it has weakened considerably, still remains on a higher level than Currants; also the demand in the Commonwealth for this fruit is normal, and should account for the quota retained for home consumption.

Although the Prime Minister has refused a deputation of growers their request to guarantee costs of production, it would appear that a very strong claim can be made for an export bounty on these two lines.

## SULTANA SALES IN THE COMMONWEALTH.

There are many dealers, in South Australia especially, through having to comply with the export quota fixed by the State Boards, now find themselves in short supply to fill orders, and who are now claiming that the export quota should have been less and more fruit retained in the Commonwealth.

The true position is that there are still plenty of stocks available, especially in Victoria, which produces the great bulk of this fruit.

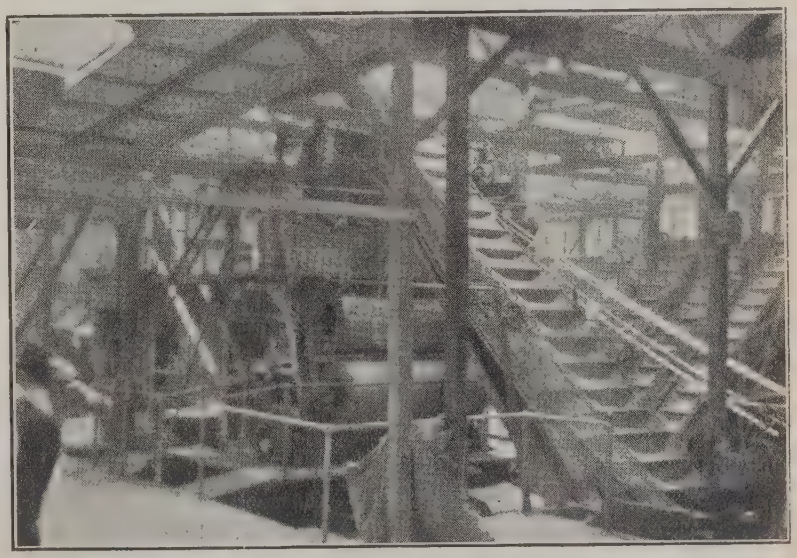
These stocks are held mostly by Association agents, who have had to stand by and see all the early sales going to dealers who have been cutting the Association price by about ½d. per lb. The price fixed by the Association shows a nett return to the grower for 2cr. Sultanas, of £65/8/11, less packing and railage costs.

This price is a fair one, and if the Association had entered the race for early sales, the price cutting inevitably would have quickly reduced returns to growers to less than world's parity, the London price being now in the region of £60, f.o.b. The trade is now coming on to Association fruit, but having had a taste of cheaper fruit, there is still some reluctance with a few buyers to pay Association prices.—"Australian Dried Fruit News."

## DRIED FRUITS SALES IN LONDON.

### Sultana Prices Maintained.

In a cable to the Chairman of the Commonwealth Dried Fruits Control Board (Mr. W. C. F. Thomas) the London Agency stated that the following sales of dried fruits have been reported during the period 9th to 15th October, 1925:—**Sultanas,** 244 tons, average price, £71/16/- per ton. The lowest was £67, and the highest £100 per ton. **Currants,** 99 tons, average price, £31/19/- per ton. Lowest £26, highest £42. **Lexias,** 115 tons, average price, £33/15/-, lowest £28, highest £56.



Steaming and Grading Machine for Dried Vine Fruits.

Inclusive of the foregoing the total sales recorded with the London agency of the Board since the opening of the 1925 season are as follows:—

**Sultanas.**—416,165 boxes, equivalent to 10,404 tons, at an average price of £68/5/- per ton.

**Currants.**—87,105 boxes, equivalent to 2,177 tons, at an average price of £37/10/- per ton.

**Lexias.**—47,792 boxes, equivalent to 1,195 tons, at an average price of £39/19/- per ton.

* * *

## RENMARK FRUITGROWERS' CO-OPERATED.

At the annual meeting of the Renmark (S.A.) Fruitgrowers' Co-operated Ltd. in October, the Chairman (Mr. H. D. Howie) said that following 1923-24 season's pack of dried fruits was 2,580 tons, and provision was made for handling a larger crop this season. The quantity actually received, however, was only 2,312 tons, due to damage caused through rain, and also, owing to the unfavorable market prospects for Lexias, many growers preferred to send their fruit to the distillery rather than dry it. Currants sales have not come up to expectations, owing to the poor quality of the fruit.

The overseas market for Sultanas and Lexias showed an improvement. Realisations, however, were slow, and the quantity sold to date was not large. Strenuous efforts were being made by the Commonwealth Dried Fruits Control Board to return growers a payable price. The past year's operations would have to be extended over the whole year to quit stocks at a payable price. The financing of growers was a difficult problem; growers had had a series of bad years, the outlook was now hopeful, but results were slow in coming. Their shed operations for the year were satisfactory, and costs had been reduced.

The balance-sheet showed a surplus of £6,603, which was disposed of by an allotment of £2 a ton on all fruit delivered (£4,604), provision for reserve £15,000, and balance being carried forward for income tax and other contingencies.

## DISTILLERY FRUIT.

Growers of dried fruit will be glad to hear that the recent alterations in the Tariff have enabled distillers to offer very satisfactory prices for low grade Lexias, Buck Currants, and Tailings, which have been accumulating at the packing sheds during the last two seasons.

The Mildura Packers report that they have made a sale to the Federal Distilleries Pty. Ltd., Port Melbourne, of a considerable parcel of dried fruits, which are only fit for distillation at a big advance on the prices offering prior to the Tariff alteration.

Growers who have Lexias on the racks, which are of distillery grade only, will be well advised to consult their packing shed before accepting any offers, as the future offers possibilities of even higher prices being obtained.

### Acknowledgment.

Illustrations on pages 459, 460, 461, are by courtesy of the South Australian "Storekeepers' and Grocers' Journal."

Illustrations on pages 451, 456, 464, 465, 468, 469, 480, are by courtesy of "The Leader," Melbourne.

## THE TARIFF ON FARM IMPLEMENTS.

The Tariff Board, an independent body appointed by the Government for the purpose, after an exhaustive enquiry, has issued a report, and among others, the following statements are made:—

The Tariff is imposing no burden on the primary producer.

The existence in Australia of the implement industry, is in the best interests of the primary producer.

Australian made implements are sold cheaper than imported implements.

There is no need to import dutiable implements.

If a farmer insists on using an imported machine, it is not unfair to expect him to pay the duty.

The prices of Australian-made agricultural implements have been regularly and consistently reduced since the protective tariff of 1920-21 was introduced.

Australian implement makers are not charging excessive prices, neither are they making excessive profits.

The prices of implements are in all probability much lower in Australia with protection and local manufacture, than they would be under free trade had no local manufacture existed.

A copy of the complete report will be sent gratis, on application to the Australian Industries Protection League, 372 Flinders-lane, Melbourne.

# Personal.

## ENGLISH ENTOMOLOGIST ARRIVES.

Mr. P. J. Fryer arrived in Australia by the Orient liner "Oronsay" on October 24. Mr. Fryer is an entomologist of note, and the author of several volumes on the Pests and Diseases of Fruit Trees, Fruit Tree Spraying, etc. Mr. Fryer also holds degrees in chemistry, and comes to this country for the purpose of studying the possibilities of the market for Messrs. McDougall & Robertson Ltd., of England, which firm is associated with that of Messrs. William Cooper and Nephews Ltd., of Berkhamsted, England, of which Sir Richard Cooper, Bart, is the chairman. Messrs. McDougall are known throughout the old country for their fruit tree sprays and hop washes. Mr. Fryer will proceed to Sydney, c/o Messrs. Wm. Cooper and Nephews (Australia) Ltd., 4 O'Connell-street, Sydney.

Mr. A. O. Small, Fruit Agent, of the Sydney Municipal Fruit Markets, has just returned to his business after a very serious attack of typhoid fever, which extended over a period of four months. Mr. Small received a warm welcome by his fellow-fruit agents on returning to his duties.

Mr. J. W. Blick, manager of the Fruit and Vegetable section for the Coastal Farmers' Co-operative Society Ltd., Municipal Markets, Sydney, who underwent a serious operation recently by having his tonsils removed, has now so far recovered that he is able to take up his duties again. Mr. Blick was two weeks in a private hospital, and after recuperating in the country for several days, feels much benefited. Mr. Blick mentioned to our representative, he has been connected with co-operative matters during the past 25 years, 11 of which have been spent with his present society.

Referring to trade matters of export, Mr. Blick said his company exported largely to the United Kingdom, Canada, New Zealand and the East.

### Orchardist Wanted.

ORCHARDIST WANTED. Good wages. Send references. Elinora Orchards, Wheeler's Hill, Vic.

## GENERAL NOTES.

### Government Enterprise in Queensland.

In the recent Queensland State financial budget, an additional £1,000,000 was set down to be obtained by taxation. The total number of Government employees is stated at 35,011, who are paid £8,503,352 per year; the total population of the State is just over 400,000. Thus, one person in every 12 adults in Queensland is in a Government position.

### No Waste in Pineapples.

Hawaiian Pineapple canners have developed their industry to the stage where not a fraction of the Pineapple is wasted. The parts not suitable for regular commencial packs of canned Pineapple are used as by-products, while the trimmings, cores, ends and shells, all go to sugar mills, the juice being extracted and converted into sugar, citric acid, alcohol, carbon dioxide and vinegar. The final residue is converted into stock feed.

## ORCHARD TAX IN N.S.W.

### 1/- per Acre.

Regulations have been issued under the N.S.W. Plant Diseases Act of 1924, fixing the fee for the registration of any orchard or nursery at 1/- per acre, or part of an acre, and also the fees for the inspection of plants and fruit at any port or place of entry or quarantine station. All orchards containing an area of less than a quarter of an acre are exempt from the payment of the registration fee.

## OBITUARY.

### Death of Mr. E. Naughton, of South Australia.

General regret will be felt at the death of Mr. E. Naughton, General Secretary of the South Australian Fruitgrowers and Market Gardeners' Association, which occurred on October 16th, at Adelaide.

Mr. Naughton's death was sudden and unexpected. He transacted his business in the usual way, then but a couple of days before his decease he complained of feeling unwell. He was taken to a private hospital on the 15th October, was operated on, but he died the next day.

The late Mr. Naughton was a valued officer of his Association, and of several other associations with which he was connected, and his many friends deeply mourn the loss of a capable and genial man.




# The Citrus Industry.

**Big Expansion of Sales will Follow Organised, Well Directed Efforts.**

**Views of Mr. W. H. Murray.**

On his return from a trip through U.S.A., England and the Continent, Mr. W. H. Murray, of the Vacuum Oil Co., Melbourne, sends the following notes in the hope they will be of service to Australian growers:—

MANY Citrus growers in Australia have not obtained repayment for the capital invested in their groves. On account of the low nett price obtained for their fruit, Californian growers have been through similar experiences, but have, to a large extent, overcome their difficulties by huge co-operated effort. Sale channels have been explored, and distribution arranged so that the needs of all small towns and villages are cared for, as well as the large cities, weekly deliveries being made where daily deliveries are not practicable.

In many cases the fruit has to be sent several thousand miles. For long distance transit, it is pre-cooled to 40 deg. F., then placed in ice cooled cars; through combined effort and organisation it reaches its destination in good order. It is an accepted fact to-day in all large fruit producing countries that successful handling of fruit can only be maintained on a co-operative basis. Further, the success of co-operation depends on the loyalty of the individual.

Items of detail such as—New channels of business, advertising, packing, freight or distribution, are problems all too big for the individual.

Improvement can be effected in Australian marketing methods by adopting similar arrangements. Mr. Murray sums up the position thus:—

1. The quality of Australian-grown Oranges equals the world's best.

2. Australian Citrus trees produce as much high grade fruit as trees of equal size in any country.

3. Through sound advertising 300,000 cases of Oranges are sold weekly in Hamburg during the Mediterranean season.

4. There is an enormous sale for Citrus fruit where the public are educated.

5. **On a hot summer day over 2,000,000 Oranges are used in drinks in the city of New York.**

6. Citrus juice drinks can be obtained in all drug stores in U.S.A.

7. One firm has 47 shops selling Citrus juices only in New York city.

8. Australia is one of the few civilised countries where fruit salad in some form is not generally served for breakfast.

9. If each Citrus grower would concentrate to effect a big co-operated effort, the industry must come into its own.

## N.S.W. CENTRAL CITRUS ASSOCIATION.

**Major Hallard Resigns.**

Owing to the resignation of Major H. R. Hallard from the managership of the N.S.W. Central Citrus Association, Mr. H. G. Such, previously manager of the Griffith Producers' Co-operative Association, has been appointed in his stead. Mr. Such took over his new duties at the end of October.

By his organising ability, Mr. Such has won the confidence of growers: all good wishes go with him in guiding the destinies of the N.S.W. Central Citrus Associaton, which is steadily increasing its activities.

## MANURING NAVEL ORANGES.

**A Striking Demonstration of the Value of a Complete Manure.**

For some years past Mr. H. S. Clarke, of "Napier," Somersby, near Gosford, N.S.W., has devoted a considerable amount of his time to carrying out manurial experiments. These have all been conducted in his orchard under his personal supervision, and include tests on citrus fruits, Passion vines, Tomatoes, and other vegetables, and also green fodder crops.

The benefits to be obtained from the use of manures have been shown conspicuously in all the trials which have emphasised the importance of applying a complete manure. This point is demonstrated in a most striking manner by the results obtained this year from an experiment started two years ago on some Washington Navel Oranges.

The particulars of this test are briefly as follows:—

Four uniform plots of 10 trees each were carefully chosen from a block of six-year-old Washington Navel Oranges, growing on a sandy loam, and planted 20ft. apart on the square system. The selected trees were all given identical treatment, except as regards manuring, and a careful record was kept of the fruit gathered from the different plots. These yields were afterwards calculated to the acre basis, so as to give figures more suitable for comparative purposes.

Dressings of fertilisers were applied in August-September and February-March, and were as follows for the four different plots:—

| | Per tree |
|---|---|
| 1. Basic Superphosphate .. .. | 4lb. |
| Sulphate of Potash .. .. | 1lb. |
| 2. Basic Superphosphate .. .. | 4lb. |
| Sulphate of Potash .. .. .. | 1lb. |
| Nitrate of Soda .. .. .. .. | 2lb. |
| 3. No manure, check plot. | |
| 4. Nitrate of Soda .. .. .. .. .. | 2lb. |

The Basic Superphosphate and Sulphate of Potash were ploughed in in August and February, and the Nitrate of Soda applied later, being divided into two top-dressings of 1lb. per tree each, the first being applied just after the other manures, and the second about a month later.



Swan Hill (Vic.) district exhibit at Melbourne Royal Agricultural Show.

Choice Citrus Fruit was displayed.

The yields from the four plots were:—

| | | |
|---|---|---|
| Plot 1. .. .. | 142 | bus. per acre. |
| Plot 2. .. .. | 223 | „ „ |
| Plot 3. .. .. | 136 | „ „ |
| Plot 4. .. .. | 158 | „ „ |

Thus the Basic Superphosphate and Sulphate of Potash (without Nitrate of Soda) showed an increase of 6 bushels per acre, and the Nitrate of Soda (without Basic Superphosphate and Sulphate of Potash) an increase of 22 bushels per acre, whereas the three fertilisers combined showed an increase of 87 bushels per acre.

This means that the increase from the use of the complete manure was over 14 times as great as that from the use of the Basic Superphosphate and Sulphate of Potash without Nitrate of Soda and four times as great as that from the use of Nitrate of Soda alone.

This test is a very good illustration of the "law of the minimum," and is a remarkably demonstration of the fact that phosphoric acid, potash and nitrogen are each an essential plant food, and that full benefit cannot be obtained from the application of any one of them if there is a deficiency of any of the others.

What big profits are to be derived from the use of a suitable complete fertiliser is also clearly shown from the results obtained from plot No. 2.

The fruit, we should mention, when sold realised 12/4 per case nett, so that the increase of 87 bushel cases was worth £53/13/-.

The quantity of fertilisers applied per acre for the twelve months was a little under 8 cwt. of Basic Superphosphate (actually 109 x 8 lb.), 2 cwt. of Sulphate of Potash, and 4 cwt. of Nitrate of Soda, the total cost of which at the present time would not exceed £8. Thus, making the liberal allowance of 33/- for the cost of applying the fertilisers, the actual nett profit from their use was £44 per acre.

What other investment would give such a return for the capital outlay of less than £10? Mind you, this return is after repaying the capital in full.

## FUMIGATION WITH CALCIUM CYANIDE.

The following interesting extract is taken from Kurrajong (N.S.W.) Soldiers' Settlement Bulletin for September, 1925:—

Up to date 12,000 trees have been fumigated on the settlement during daylight, the last blocks being done on trees showing young tender growth and developing flower buds. Very scaly functionless leaves fell a few days after dosing, but the closest scrutiny has failed to reveal any damage done to the delicate growth. Daylight contracts will now cease, and there will possibly be no more cyaniding done till about January (night time).

Exhaustive and careful experiments will be carried out to see if we can lessen the time of exposure of trees to gas, whilst using calcium cyanide. The object is to reduce the number of tents, and hasten the operation. For the past three months one man and a boy have been handling 26 tents, covering the same number of trees, and charging tents with gas in 40 minutes. If a 30 or 35 minutes' period would give a definite scale kill, handling costs would be considerably less on young trees. A certain number of trees will be fumigated whilst in full bloom, to see if any detrimental result will take place with the setting of the fruit, and another line will be done with fruit of marble size to see if it will cause a shedding of the fruit.

The dusting of the Lemon has not given us the same uniformly satisfactory results under the varying conditions we have worked as the Orange and Mandarin, and further tests will be tried to see if a lighter dosage than Allen's No. 2 table will give the kill without undue damage to the fruit or the foliage.

Twelve trees were treated with a preparation known as "B" Dust on 31st July. This has 50 per cent. talc added to calcium cyanide. There has been no leaf drop, and the scale kill appears high, but final examination has not been made.

The Department of Agriculture has been approached with a view to getting orchardists adjoining the settlement to clean up scaly trees.

To prevent possible re-infestation, all scaly fruit on trees or on the ground not fit for market should be collected and burnt at the earliest with all prunings, as breeding up of "red scale" commences in the spring, all likely sources of infection must be removed.

* * *

The "Fruit World" acknowledge having received from Messrs. Buzacott & Co. Ltd., of Market-st., Sydney, a file of interesting information regarding the effectiveness of calcium cyanide for the fumigation of citrus trees.

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The Victorian Central Citrus Association is urging the passing of legislation for a compulsory case levy on the basis of the citrus crop harvested.

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## ANSWERS TO CORRESPONDENTS.

**Citrus Stock.**—A reader at Beverford, Swan Hill, Vic., writes:—I am thinking of going in for a few Oranges, and would like to know the stock best suited for this district.

**Answer** (by S. A. Cock, Vic. Govt. Citriculturist).—The Citrus stock best suited to Beverford is the Sour Orange. Nurserymen in New South Wales will not work this stock, consequently, as growers in Victoria are entirely dependent on N.S.W. for the supply of nursery trees, the only other stocks obtainable are Common Lemon and Sweet Orange. Of these I prefer the former.



*Illustration by the courtesy of the Vict. Railways*

**Two Photos of the Charming Young lady who won the first prize for poster costume ("Eat More Fruit") at a recent Victorian ball.**

## FRUIT CROPS ABROAD.

The Tasmanian Government Fruit Expert (Mr. P. H. Thomas) is in receipt of the following report from the Canadian and U.S.A. Departments of Agriculture concerning the Apple and Pear crops for 1925 season.

### UNITED STATES.

#### Apples.

The United States Department of Agriculture now forecasts a substantial increase in the commercial Apple crop since the July report, and estimates the yield to be 30,364,000 barrels, compared with 29,230,000 barrels on July 1, and 28,701,000 in 1924. This places the commercial gain since July 1 at 1,134,000 barrels. The largest gain is reported from New York State, while losses are credited to the Virginias, Missouri, Arkansas, Colorado, Washington and Oregon.

#### Pears.

The United States Pear crop for the most important producing States is estimated at 17,669,000 bushels compared with 18,628,000 bushels in 1924, and the five-year average of 17,056,000 bushels. The crop now indicates a decrease of 859,000 bushels over last year. In New York State the crop continues to show up better as the season advances. Bartlett's will be rather a light crop, although they are sizing well, and are of general good quality.

### CANADA.

#### Apples.

The Canadian commercial Apple crop may be estimated at this date to indicate 96 per cent. of 1924, or 2,643,869 barrels. A gain of 90,502 barrels is shown from British Columbia, Ontario, Quebec and New Brunswick combined, and a loss of 43,485 barrels from Nova Scotia, which gives a net gain of 47,017 barrels, or a two per cent. increase compared with the August report.

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## SYDNEY FRUIT TRADE.

Criticism of Sydney fruit agents recently found expression by some growers in the Sydney press. Some sweeping statements were made by correspondents, but editorials on the subject do not subscribe to the views expressed, it being stated that the commercial morality of the responsible agents is as high as in any other calling. One result has been that the agents met together to consider the formation of an Association to protect their interests and defend them against unfair attacks, for which it was stated casual agents were really responsible, yet the whole body of agents was blamed.

A representative committee, embracing the various sections of produce merchants, has been appointed to make enquiries and report to a further meeting to be held shortly. At the recent meeting the suggestion was made that the new association should have power to refuse a new agent permission to commence business until his commercial soundness was firmly established. It was also suggested that the city markets and the Bathurst-street Exchange should work in more closely together than they have in the past, their interests being identical.



**Curlwaa (N.S.W.) Co-operative Packing Company's First Prize Collection of Citrus Fruits at recent Royal Show, Melbourne.**

# Editorial.

## A GREAT DECISION.

AUSTRALIA IS FACING a tremendous crisis. The forthcoming election on November 14th is fraught with grave possibilities for good or evil. The progress of this young nation has been great during the past 50 years, because we are a law abiding people, and have developed along sane and ordered lines.

Now, all that we love is threatened —peace, good government, the sanctity of home and the marriage tie.

This is more than a political question. It is not simply a matter of deciding by whom we shall be governed, though that, of course, is involved.

This paper has consistently maintained a non-political attitude throughout the 26 years of its existence. Now we cannot refrain from taking our share in this fight, in the interests of all who love their country. Ships are being held up, and, as we write, farmers in Queensland are preparing to leave their farms so that they may work on the water front to keep the ships' refrigerating engines going, otherwise their meat, which is already loaded, will perish.

It may happen with our fruit next. South African fruitgrowers have already suffered grievous losses. Growers of canning fruits at Leeton are anxious because the strike has held up their necessary supplies of tin plate.

Verily, our economic and social life to-day is delicately adjusted, and any dislocation brings serious consequences.

This election is being fought on the clear cut issue—Constitutional Government or Communism. Let labor purge its ranks of the foreign emissaries of bloodshed and revolution before it can justify its claim to be one of the constructive forces in the community.

Mrs. Snowden, wife of Philip Snowden, British Socialist leader, recently wrote:—"I am a socialist, a democrat, and a Christian. I oppose Bolshevism, because it is not socialism; it is not democratic; it is not Christianity. The Bolshevists have suppressed God."

In the forthcoming election voting is compulsory. Some, however, may not vote, risking being fined. Some will find it difficult to go to the polling booth. Let us all help in any and every way that lies in our power. And remember, To win this fight for law and order, the Government must win both in the House of Representatives **and the Senate.** For the latter, the voting is State wide, and every vote is vital.

The declared and published objective of the Labor party is **the socialisation of all the means of PRODUCTION, distribution and exchange.**

Those who do not subscribe to this objective and who are determined to rid our fair Australia of its foreign elements of destruction, will not only determine to vote for those who stand for ordered Government, but will become keen personal and convincing workers in the cause between now and polling day.

(Ralph Edwin Boardman, 9 Queen-street, Melbourne.)

# Fruit Canning.

## Mr. T. H. Peart, of Shepparton (Vic.) Returns from U.S.A.

After an absence of several months in U.S.A., Mr. T. H. Peart, Indoor Manager of the Shepparton Preserving Co. Ltd., has returned to Australia with a widened experience. He was impressed with the immensity of the fruit canning trade in California: he saw practically a full canning season, commencing with the Apricots, the principal canning varieties of which are Tilton, Blenheim and Royal. Growers received 55.00 dol. a ton for their Apricots. On purchasing Apricots in the principal cities, he found the price to be 15 cents per lb.

In grading, the canners pack their "Choice," "Standard," and others, according to schedule, but there is no Government standard. Mr. Peart believes the idea of Government standards as in Australia to be preferable.

The last U.S.A. clingstone Peach pack was 9,000,000 cases for the season (2 doz. tins to the case). Prices to growers range about 35.00 dol. per ton for No. 1 quality, and 17.50 for No. 2.

Mr. Peart states that the grading of the Shepparton fruit is quite equal, if not superior, to the average Californian pack. In California hesawlarge and small canneries, and those with satisfactory and poor equipment. The Americans secure much larger crops per acre than Australians, which accounts for the lower price which they can accept for the fruit. In some of the valleys the soil was similar to our best rich river flats, with adequate irrigated water supply, though it costs 35/- per acre per annum for water—dearer than in Australia.

The fruit pie trade was immense. Twenty-two per cent. of the canned Apricots went into pies, and 16 per cent. of the Peaches. Tins containing a gallon were filled with fruit; water was added, but no sugar, and the fruit was then processed. Big trade is done with hotels and restaurants.

Mr. Peart believes that intensive advertising has taught the Americans the value of fruit as a diet.

The opening price for the canners for Pears was 70.00 dol. a ton. He believes the season's prices will average from 60.00 dol. to 65.00 dol.

There is a large orchard at Westhaven, California, owned by the Boston Land Co., consisting of 10,000 acres—4,800 acres under cling Peaches and 2,800 acres under Figs, Apricots and vines. There are 42,000 acres altogether in the allotment, and water for irrigation was obtained from bores.

In Californian orchards, Mr. Peart saw only one horse. Growers were using 4ft. high tractors with caterpillar wheels.

He was much impressed with the organisation of the fresh fruit trade. In this matter, Australian growers have much to learn from U.S.A.

* * *

## MOOROOPNA CANNERY.

Growers in the Ardmona-Mooroopna district are to be congratulated on their enterprise in erecting the canning factory which is expected to commence operations (commencing with Apricots) in December.

A dehydrating factory is already established, but in view of its inability to deal with all of the fruit produced in the Mooroopna-Ardmona district, the growers approached the Ministry for assistance to erect a co-operative cannery at Mooroopna. An advance of about £40,000 was duly guaranteed, this being covered by the cannery itself and by the uncalled capital of about 40,000 shares taken by the fruitgrowers. The dehydrating plant will be held in conjunction with the cannery, thus enabling both the canning and drying processes to operate during the same season. It is expected to process about 3,000 tons (3,500,000 tins) of fruit in the first year.

(Continued on page 480.)

# Victoria.

### Departmental Report.

### Improved Sultana Position: Deciduous and Citrus Prospects Good.

In a report issued by the Horticultural Division of the Victorian Department of Agriculture for September, it was stated that a good yield of deciduous fruits was anticipated.

Regarding **Sultanas**, the report continues:—

A more hopeful tone is evidenced among Sultana growers as a result of improved prices ruling in London recently for this fruit. This is no doubt in some measure due to improved drying methods, notably the cold dip, which has "come to stay." Patchy samples are complained of rather frequently. Owing to the lighter color of the average, dark berries show up more conspicuously than in hot dipped fruit. It is hoped that this defect will be obviated, or at least much reduced in future seasons, as the result of more extensive experience of the new method. Currants and Lexias are still quoted at low prices in London.

The outlook in the wine industry continues hopeful. The Commonwealth bonus and Preference to Empire products have already borne good fruit in shipments of sweet wines on a scale far in excess of anticipations.

**Citrus.**—The Navel crop is now harvested. Valencia Late, of which there is a good crop, and late common type, such as Mediterranean Sweet, are now on the market. Citrus trees generally are looking healthy, and the flowering in the early districts hold out promise of a good crop for the coming season.

**Harcourt.** (18/10/25).

Spraying for Black Spot has been systematically carried out during the last few weeks. As the weather keeps dry there seems little likelihood of a serious outbreak of this disease this season.

The trees are looking well, (Pears especially blossomed heavily), but it is too early as yet to say what the setting will do. The prospects for a good Apple crop are also promising.

Much fruit is still held in the Cool Store and is being dispatched chiefly to up country centres and interstate markets.

## VICTORIA'S FRUIT INDUSTRY.

### The 1924 Harvest was Valued at £5,765,597.

The value of the fruit harvested in the 1923/4 season is set out by Mr. J. M. Ward, Superintendent of Horticulture, in the following figures:—

| | |
|---|---|
| Fresh fruit gathered | £1,593,873 |
| Tomatoes | 116,666 |
| Grapes (table use) | 45,804 |
| Small fruits gathered | 23,927 |
| Nuts | 2,843 |
| Wine made | 435,425 |
| Lexias | 179,983 |
| Sultanas | 1,100,502 |
| Currants | 301,734 |
| Other Dried Fruits | 34,582 |
| Canned Fruits, Jams, etc. | 1,930,258 |
| | £5,765,597 |

The value of the harvest in 1922/23 was £5,543,064

The Apricot crop in Victoria promises to be light.



Garden Week at Melbourne in October was a great success. A bigger programme is projected in the coming Autumn, when fruitgrowers are offered a big advertising opportunity. Figures left to right: Capt. Keppel-Palmer, A.D.C., Mr. J. W. Robinson, His Excellency the Governor the Earl of Stradbroke, K.C.M.G., Messrs. W. R. Warner (President), R. E. Boardman (Secretary), Jas. Railton, A. N. Rimington, and E. Wiseman.
(Other members of the Garden Week Committee, not in photo., were Messrs. R. Wright, B. Hodgins, H. A. and C. H. Cheeseman).

# TASMANIA.

## Cultural Notes. ∴ Items of Interest.

*(By Our Correspondent.)*

THROUGHOUT the blossoming period the weather has continued dry, with cold west and south-west winds. The season is quite ten days later than last year, and the variable weather experienced has caused an uneven blooming of most varieties.

Although the strong winds which prevailed at the "pink" period made spraying a difficult and unpleasant operation, the majority of growers have stuck determinedly to their task, particularly in applying the fungicides necessary to prevent Black Spot infection. Although too early to advance any crop prospects, it is satisfactory that the majority of orchards are much improved in health and vigour.



Sale (Vic.) Exhibit at the Melbourne Royal Show.

Except for reports of late frosts in some of the Apricot districts very few complaints have been received. **Fruitgrowers are generally optimistic as to the outlook for next season's crops.**

Buyers are already operating, and several tempting offers are reported to have been made for overseas export varieties.

From the published U.S.A. and Canadian crop reports, it is unlikely that much of the early Australian shipments will meet with competition from these sources, and it is hoped that the experiences of last year will be repeated. A good season, with payable prices, and a normal crop, would make a great deal of difference to the industry, and bring it back to the position occupied in pre-war years.

### Demonstration Plots.

The programme of the Fruit Division of the Department of Agriculture for the coming season embraces nearly all the principal pests experienced under Tasmanian conditions of fruit culture. This work is much appreciated by fruitgrowers, each year new and interesting data is recorded, and the grower is placed in a better position to carry out more economic and improved control measures. The following is a brief outline of the work undertaken, together with the districts of operation:—

Black Spot Control.—Hillwood, E. Tamar.

Powdery Mildew. — Exeter, W. Tamar.

Apricot Shot Hole.—Bagdad.

Red Spider (Bryobia pratensis).—Huonville.

Black Cherry Aphis.—Judberry.

Currant Borer (experimental plot). —Sandfly.

In addition a number of manuring plots are in progress in the principal districts and several new and untried treatments are being tested.

### Imperial Economic Committee.

Tasmanian fruitgrowers are keenly interested in the operations of this committee, as it is realised that the export Apple trade should materially benefit under the scheme of assistaance proposed by the Imperial Government.

It will be remembered that £1,000,000 was allocated instead of a preferential tariff, to be used in improving and organising the sale of empire food products.

The first report of the committee is now to hand, the chief recommendations being:—

(1) That a national brand be decided for the identification of empire goods.

(2) That a commission should be formed for the purpose of supervising the annual grant from the British Parliament and charged with conducting the movement for trade in empire produce.

(3) That a scheme of co-ordinated research into the production and preservation of foodstuffs is of primal importance.

(4) That the Executive Commission should commence by allocating the grant as follows:—65 per cent. for the promotion of trade in Empire produce, 15 per cent. for research work, 20 per cent. reserved for other schemes, such as the promotion of fruitgrowing in tropical portions of the Empire, and the carriage of pedigreed stock from the United Kingdom to overseas parts of the Empire.

### Woolly Aphis Parasite.

There is abundant evidence that this insect has firmly established itself amongst the Tasmanian orchards, and is doing good work in controlling the woolly aphis.

Colonies of Aphelinus mali are now being bred from parasitised wood received from the various centres of liberation last season, by the Fruit Division of the Department of Agriculture. The insects are hatching out freely, and are being distributed throughout the fruit districts as they become available.

### Increased Use of Fertilisers.

During the month, Mr. H. W. Gepp, manager of the Electrolytic Zinc Co., visited the various primary producing centres for the purpose of ascertaining the existing methods of culture, particularly in respect to fertiliser application to improve the yields of the different crops. Mr. Gepp's re-

port shows that the average producer is much behind in this respect, and that with more intelligent application very big improvements could be effected.

The Electrolytic Zinc Co. have recently erected a large plant at Claremont, in conjunction with the zinc production for the manufacture of superphosphates, and are now supplying large quantities of the fertiliser.

The company has placed certain proposals before the Government for the establishment of agricultural bureaux similar to those in operation in South Australia. It is suggested that a number of manuring plots be arranged in the various districts through these agencies, and that the company provide an efficient soil chemist for assisting these demonstrations, and instructing producers in the various soil requirements.

### Tasmanian Fruit Abroad.

Tasmanian fruitgrowers take strong exception to the statements which have emanated from Mr. A. T. Booth, of Western Australia, in regard to the quality of the fruit forwarded to the overseas markets last season.

Amongst other criticisms, Mr. Booth is reported to have stated, inter alia:—"The large quantity of inferior and scabby fruit coming from this State was responsible for the drop in prices toward the end of the season."

This was brought to the notice of the Hon. Minister of Customs by the Fruit Advisory Board, with a request that it be investigated.

**A reply is to hand that in consequence of this and other charges regarding the fruit exported, the High Commissioner was requested to inquire into the matter, and supply reliable information. In his report it is stated "That the charges are quite unfounded, and that there was no justification for such an alarming report." Incidentally, the Customs Department advise that a rigid inspection was maintained over all shipments, and that these were in strict accordance with the export regulations.**

### Important Meetings.

A meeting of southern municipalities and fruit boards will be held early in November to consider a concerted scheme of action for the control of the Currant Borer.

During the month the State Fruit Advisory Board will meet to consider certain suggestions from the State Fruit Expert, Mr. P. H. Thomas, for the improvement of the industry, centralising inspection of orchards and placing the educational and instructional work of the Fruit Division upon a better basis.

## TASMANIAN FRUIT INDUSTRY.

### Methods for Improvement.

**Hobart**, Oct. 24th.

Mr. P. H. Thomas, the Tasmanian Govt. Fruit Expert, has submitted a scheme for the production and marketing of fruit, wherein is stressed the importance of growers becoming more acquainted with the proper method of spraying and pest control. He suggests that the State be divided into seven fruit districts, and that orchard supervisors be appointed to reside in each district. The officers would need to be fully acquainted with orchard routine, treatment of pests, and to be competent packing instructors, also, that these officers be appointed inspectors under the Standardisation and Insecticides Act and carry out inspectional duties. He urged that the Codlin Moth Act be repealed, substituting an Act known as the Orchard Registration Act, a rate thereby being levied (not exceeding and taking the place of the codlin moth rate) which would cover the service given by the supervisors. Mr. Thomas suggested a uniform rate covering all fruit areas and not exceeding 1/- per acre, which is the average rate now levied under the Codlin Moth Act.

A campaign of educational instruction could thus be carried out, growers being shown how to control those diseases which can be so successfully checked or swept out instead of trying to enforce prescribed treatments. Packing classes could also be arranged in each centre, as well as demonstration plots regarding spraying, manuring, pruning, reworking, etc. Growers could obtain from the inspectors practical advice in the mixing and application of sprays or manuring, drainage, pruning and grafting.

The scheme has been favorably referred to the State Fruit Advisory Board for report, with the object of requesting the Government to draft a bill for submission to the fruitgrowers' conference.

* * *

**Franklin** (12/10/25).

Orchards throughout the Huon district are at present looking very satisfactory, and there is a feeling of optimism amongst fruitgrowers in regard to the coming season. Owing to adverse weather conditions, the blossom is a little later than usual, but this is looked upon as a favorable condition. Spraying operations have been successful on the whole, and at present growers are using mainly Bordeaux and lime-sulphur, this being what is termed the "pink" stage of spraying. Iron sulphide is in use by late sprayers to combat the powdery mildew, which is in evidence in places. Provided the weather is favorable, a good crop of Apples is anticipated for the coming season.



Display of Preserved Fruit at the Royal Agricultural Show, Melbourne.

# South Australia.

## Fruitgrowers' Annual Conference ∴ Cultural Notes

THE fifteenth annual conference of the South Australian Fruitgrowers and Market Gardeners' Association was held at Adelaide on October 2nd, the President (Mr. J. B. Randell) being in the chair.

The Premier (Mr. Gunn) in declaring the Conference open, urged better organisation amongst the growers. He had been asked to bring in a Bill which would practically compel organisation of growers, registration of orchards, and the payment of an orchard tax. He would not bring in such legislation offhand, but if a plebiscite were taken and a majority were in favor, he would advise Cabinet to take the desired action. The Government was willing to grant assistance to growers and co-operative societies.

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In his annual report the President said that because of the light crops of Apples and Pears, no marketing difficulties had arisen. The Fruit Pool and Government assistance were helpful in dealing with the stone fruit crops, which were beyond normal requirements. Experiments were being conducted in the export of Plums. Good prices were received for the citrus fruit exported: the export market for citrus must be developed and extended. The Association had successfully protested against increased tariff on wood wool and crude oil. Nothing definite had transpired in their request that pure fruit juices should be used in cordials.

The report was adopted, also the balance-sheet: the membership was now 664, a falling off of 151 members, due to the financial weakness of young settlers, including returned soldiers.

Resolutions were carried urging a reduction of freight on fresh, dried and canned fruits exported: advocating the erection of co-operative packing sheds and better Government inspection; also opposing any alteration to the present marketing hours.

Mr. Donaldson introduced a motion urging the creation of a fund to purchase fruits "sold on the market at a price which killed efforts to obtain a reasonable figure for jam fruits.

After discussion, when the necessity for co-operation was stressed, the motion was withdrawn.

**Election of Officers.**

Office-bearers were elected thus:—President, Mr. C. H. Ragless; Vice-President, Mr. J. Turner; Executive—Messrs. J. B. Randell, C. H. Ragless, C. T. Fisher, J. Donaldson, H. N. Wicks, J. Turner, F, H. Edwards, H. Robson, C. W. Giles, R. A. Howes, A. O. Pike, R. Hunter, and Mr. F. Staniford, M.P.

## RIVER MURRAY NOTES.

**Berri.**

Mr. C. G. Savage, South Australian Deputy Horticultural Instructor, writes under date, October 12, regarding the coming season's prospects at Berri, South Australia:—

**Apricots.**—The crop is light to fair.

**Peaches and Nectarines.**—Light in most orchards, heavier in places.

**Plums.**—The trees have bloomed well, and should produce heavy returns.

**Citrus.**—Most of the citrus trees are now coming into bloom: from the blossoms that are showing, given good weather during the flowering period, heavy crops should be harvested.

**Pears.**—Williams is the principal variety grown in these areas on the Murray, much of the fruit being shipped away fresh to the Adelaide canneries, and the remainder being dried. The trees are a mass of flowers at present, and should give good returns. Growers are advised to spray regularly and thoroughly to produce clean fruit. **Spray the fruit**—not the leaves of the trees, i.e., see that the Pears are well coated with the poison: otherwise the work will be of little value.

**Sultana Vines.**—The promise for this season's crop on the whole is not equal to that of the past two season's. In some parts of the settlement in the frost pockets, the Sultana shoots were cut badly by frost on October 6th. Though some growers suffered severely, the majority escaped injury. The vineyards situated in depressions, where air drainage was intercepted, or where the land was somewhat dry, were cut more than where the vines were growing on slight rises, and the land was in a moist condition.

**Currants.**—These vines give promise of heavy yields.

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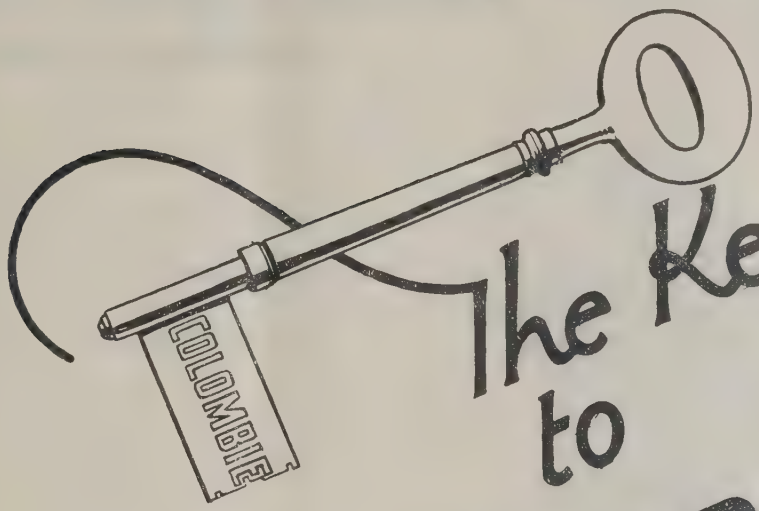
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**Gordos.**—Though somewhat early to give anything like a definite forecast, the bud burst gives promise of fair returns.

**Doradillos.**—These vines, like the Muscat Gordo Blanco, are somewhat later in shooting than the Sultana. Consequently, one cannot give a fair forecast, but from general indications, the crop should be fair to heavy.

**Diseases.**

Some growers report that Black Spot is showing on Sultanas. Vines should be sprayed with Bordeaux or Burgundy Mixture, which will tend to prevent the spread of Black Spot during the summer months, and will protect the vines from downy mildew.




# The Key to BETTER FRUIT MARKETING

**NOTHING HIDDEN.**

Complete and thorough organisation from the time the fruit arrives until it is sold; the whole transaction being clearly followed at every stage by the grower or his representative from the time the fruit is landed until the Account Sale is rendered.

SEE NEXT PAGE

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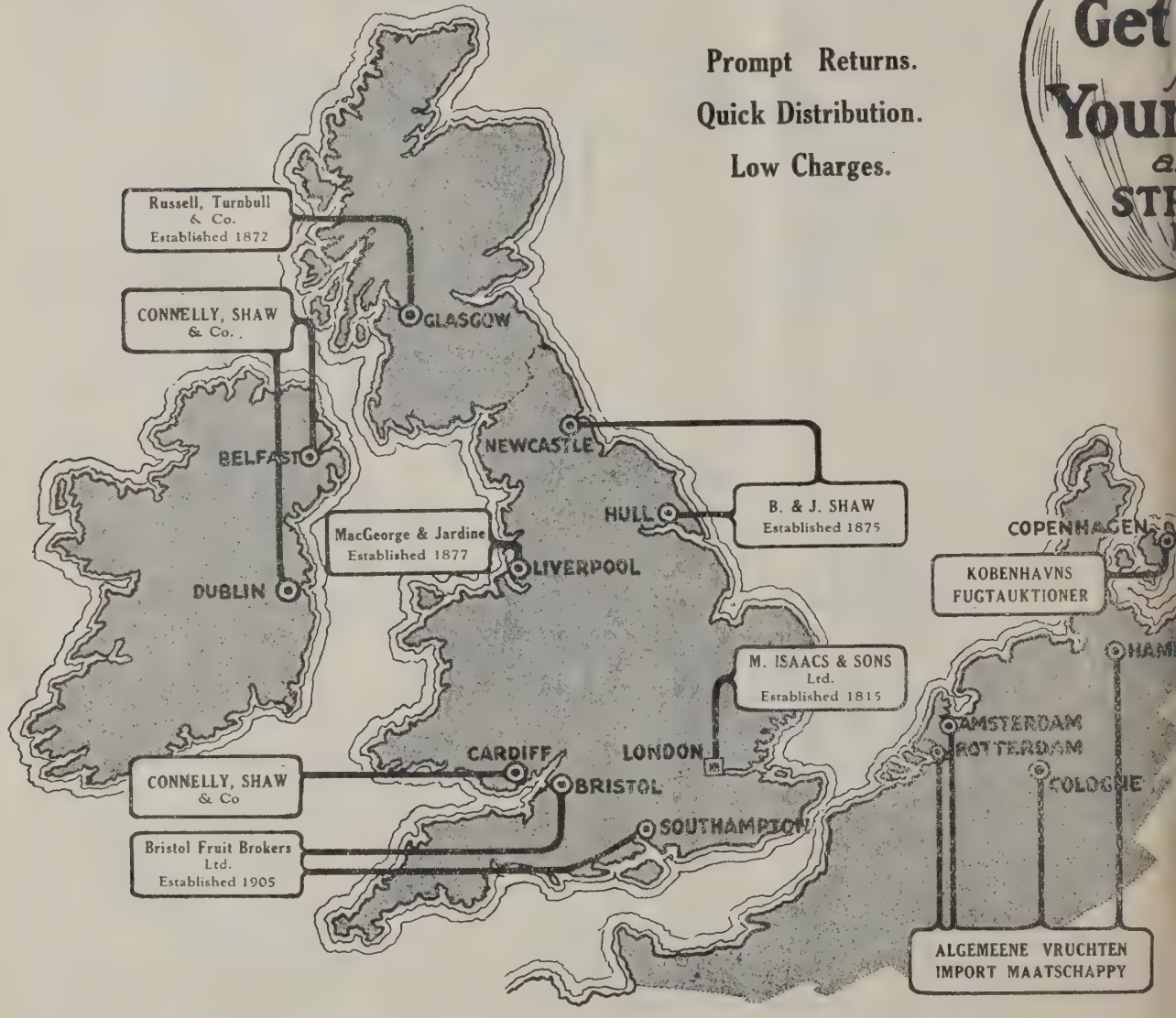
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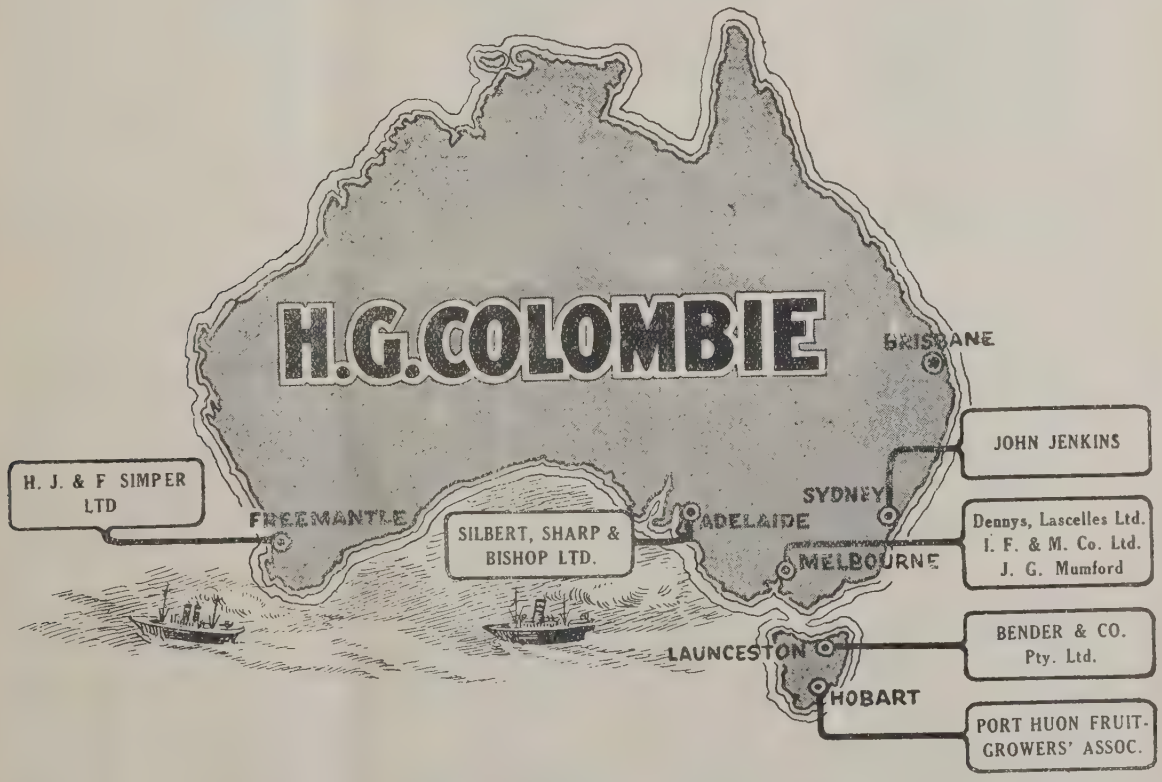
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# Queensland.

Cultural Notes. Report by Committee of Direction.

Banana Growers Object to Limitation of Agents.

## Orchard Notes for November.

### The Coastal Districts.

NOVEMBER is somewhat of a slack month for fruit in the coastal districts, as the Citrus crop, excepting a few Valencia Late Oranges, off-season Lemons, and a few Limes, is over. Pineapples are also scarce, as the late spring crop is finished, and there are only comparatively few off-season fruits ripening. The main summer crop of fruit in the principal producing districts is only in the flowering stage, though that in the more tropical parts is ready for marketing (states the Queensland "Agricultural Journal"). It is also a slack month for Bananas, as the summer fruit is not yet fully developed, and the bunches that make their appearance are usually poor. They have been slow in developing on account of the comparatively cool weather of winter and early spring, when the suckers were more or less at a standstill. Young suckers should, however, be making vigorous growth now, and the plantation will require constant attention to prevent the stools being overcrowded with too many suckers.

Keep the land well worked and free from weeds of all kinds, as good growth now means good bunches in the autumn and early winter. Where there is a danger of the soil washing badly with heavy rain, rows of Mauritius, velvet, or other suitable Beans should be planted at right angles to the fall of the land, as the growth they make will tend to hold the soil and thus save any from being washed away. When planting Beans of any kind, either to prevent washing or for green manuring, don't forget to manure them, as thereby you will get a much greater yield, and as none of the manure is removed from the soil, as the crop is allowed to lie and rot on the ground, it is all made use of eventually by the permanent crop.

A good all-round manure for a Bean crop is a mixture of 1 cwt. of sulphate of potash and 4 cwt. of basic superphosphate or finely-ground phosphatic rock to the acre, and, if the soil is deficient in lime, a dressing of not less than half a ton to the acre will be found very beneficial, as all leguminous plants require lime to yield their maximum return both of haulm and pulse.

The **Pineapple plantations** require to be kept in a state of thorough tilth, and no weeds must on any account be allowed to grow. If blady grass makes its appearance it must be stamped out, as once it gets established in the rows it is only a short time before it takes control, and the plantation is ruined, so that it can only be brought back into profit by taking out the Pines, killing the blady grass, and, after thoroughly and deeply working the land, manuring it and replanting.

The **planting of Pineapples and Bananas** can be continued throughout the month, taking care to see that the land is properly prepared.

Young **Papaw plants** that have been raised in the seed bed can be set out now, as also can young **Passion-fruit.**

**Citrus** orchards require to be well looked after; the ground must be kept in a state of thorough tilth, and if the trees show the slightest sign of distress, owing to lack of moisture in the soil, they must be given

**a thorough irrigation**

if water is available for this purpose. The trees should be carefully examined from time to time so as to note when young scale insects of any kind are hatching out, and when this is noted they should be sprayed with a weak emulsion of a miscible oil consisting of one part of oil in forty parts of emulsion, as this is quite strong enough to kill any young scales before they develop their protective covering. No oil sprays should be used when the trees are suffering from lack of moisture, as they are then likely to do more damage than good to Citrus trees.

If scale insects are very bad, and it is important that the trees are sprayed, a weak Lime-Sulphur spray, or even a soap and tobacco or weak resin wash, will kill the young scales as they hatch out.

In the earlier districts a keen lookout must be kept for the first appearance of the mites, which are the direct cause of the darkening of the skin of the fruit known as "Maori." The first indication of the trouble is that when the sun is shining on the young fruit, it appears to be covered with a grey dust, and if the fruit is examined with a good lens it will be seen to be covered with large numbers of small yellowish slug-like insects which are living on the skin. Spraying with sodium or potassium sulphide washes, as recommended by the Department, or with a weak solution of Lime-Sulphur, will destroy these insects and prevent the fruit from turning black. Borers of all kinds should be looked for and destroyed wherever found. Water sprouts, if not already removed, should be cut away.

**Vines** will require careful attention, and the vineyard should be kept in a state of thorough cultivation. Spraying for downy mildew and black spot should be continued, if necessary, as well as sulphuring to prevent oidium.

**Fruit fly** must be systematically fought whenever seen, and special care must be taken to gather and destroy any early ripening Peaches or other fruit that may be infested. If this is done systematically by all growers, as provided by the Diseases in Plants Act, there will be many less flies to attack the later crops of Mangoes and other fruits.

Leaf-eating insects of all kinds should be systematically fought wherever seen, by spraying with arsenate of lead, and Potatoes and Tomatoes should be sprayed with a combined spray consisting of Bordeaux or Burgundy mixture and arsenate of lead, so that diseases such as early blight and Irish blight may be prevented and leaf-eating insects, which frequently cause very heavy losses to these crops, be destroyed.

### The Granite Belt, Southern and Central Tablelands.

Keep the orchards and vineyards in a thorough state of cultivation, so as to keep down all weed growth and conserve moisture in the soil. This is important, as, if a long spell of dry weather sets in, the crop of summer fruit will suffer severely from the lack of moisture.

**Citrus trees** should be irrigated where necessary, and the land kept in a state of perfect tilth.

Spraying for codlin moth should be continued, and all pip fruit trees must be bandaged the beginning of the month; further, the bandages must be examined at frequent intervals and all larvae contained in them destroyed. The neglect to spray thoroughly and to attend to the bandages properly, is responsible for the increase in this serious pest in the Granite Belt, and growers are warned that they must pay more attention to the destruction of this pest if they wish to grow pip fruit profitably.

Fruit fly may make its appearance in the Cherry crop; if so, every effort should be made to stamp out the infestation at once, as unless this is done,

and if the fly is allowed to breed unchecked, the later ripening crops of Plums, Peaches, Apples, Pears, Apricots and Japanese Plums are bound to become more or less badly infested. Combined action must be taken to combat this, the most serious pest of the Granite Belt, and growers must realise that unless they take this action and see that careless growers do not breed the fly wholesale, they will never keep it in check, and it will always be a very heavy tax on their industry.

Rutherglen bug is another serious pest in this district, and is propagated by the million by careless orchardists. The best remedy for this pest is to keep the orchard clean and free from weeds.

Brown rot in fruit should be watched for carefully, and, on its first appearance in a district, all ripening fruit should be sprayed with the sodium sulphide wash.


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All kinds of leaf-eating insects should be kept in check by spraying with arsenate of lead, and all Grape vines, Potatoes and Tomatoes should be kept sprayed with Bordeaux or Burgundy mixture, the former for black spot and downy mildew, and the latter for early and late (Irish) blight.

### Dawson Valley Irrigation Scheme.

Steady progress is being made with the huge Dawson Valley Irrigation scheme in Queensland. The land is considered to be suitable for dairying, pig raising, and cotton growing. A varied assortment of fruits is growing on the Demonstration Farm under the care of Mr. O. E. Halliday, previously of South Australia. It is probable, however, that the area to be set apart for fruitgrowing will not be large. So far no land for any purpose has been thrown open.

## REPORT BY COMMITTEE OF DIRECTION.

### Compulsory Co-operation Advocated.

THE report of the Committee of Direction of Fruit Marketing, covering the period, January 1st, 1924, to June 30th, 1925, is contained in a well illustrated booklet, entitled, "The First Milestone," issued by the Committee. There can be no fairer statement than that with which the report opens, viz.:—"The best manner in which to test the value of an organisation is by results. That is how we ask the growers to judge us, after reading our initial report."

The Committee estimates that growers have benefited by savings amounting to £100,000.

### Pineapple Section.

The report states that it is estimated that as a result of the Committee's efforts the Pineapple industry has benefited to the extent of between £50,000 and £60,000—that is, by taking into account the arrangements made for the following 12 months. Under the control system, a higher price was received for that portion of the crop sent to canneries than would have been possible under a system of individual marketing: the local fresh fruit market was stabilised, eliminating the gluts experienced in the past: the southern markets were stabilised by the regulating of supplies.

The Committee first concentrated on obtaining a reasonable price from the canners, the report continues, and was successful in obtaining 3/6 per case, an advance of 3 3-7d. upon the minimum prescribed by the Federal Government. No attempt was made to interfere with supplies to the southern markets, but on the Brisbane market a minimum of 4/- per case was fixed. The price was maintained, but on many occasions it was found necessary to effect clearance to the factories. Arrangements were made to supply the Ipswich workshops, but the local growers from Moggill complained bitterly that their local market had been taken from them, and that Ipswich residents had their requirements bought for them in the workshops. The total results were disappointing: only between 3,000 and 4,000 cases were sold as the outcome of these efforts: house to house sales were also tried, and proved unsuccessful, although only 4d. per Pine was asked. The factories absorbed 145,780 cases.

In respect to the 1924 winter crop, negotiations with the canneries resulted in a price of 4/- per case being obtained for cannery supplies. This was a further increase of 6d. per case, and was only obtainable through control. Crop estimates were obtained and allocations for the south were made on the basis of a profitable southern market of 4,000 cases per week. On the basis of 4/- per case factory price (f.o.r. grower's station, cases returned, and freight paid by canners) it was considered that the Sydney market should maintain an average of 10/- per case, Melbourne 12/- per case, and Adelaide 14/- per case. It is claimed that the allocation was successful, as witness the following record:—

Winter pack, 1923 (no control) to canners, 60,000 cases; to the southern markets, 97,787 cases—approximately 160,000 cases.


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Winter pack, 1924 (under control).—To canners, 141,000 cases; to the southern markets, 81,028 cases, or approximately 221,000 cases.

It will be noted that about 17,000 cases less were sent to the south to maintain the above prices. By control the whole crop was absorbed at a minimum of 4/- per case, as against the previous winter crop being only partially absorbed at 2/6.

For the 1925 summer crop 3/9 was paid by the canners—another increase of 4d., although the growers received 3d. per case less than for the previous

pack. Control prevented congestion, and the crop was marketed without loss to the growers, and satisfactory prices were maintained on the fresh fruit markets. With regard to the 1925 winter crop, if control be maintained, a contract was pending by which the canners would pay 3/9 per case, provided the Committee could guarantee to the firm concerned that they will receive the whole of the pack. [Memo.—Since the foregoing report was issued the contract was completed, as reported in our last issue.—Ed. "F.W."]

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**The Banana Industry.**

The report continues.—A large increase in production coincided with control by the Committee. Supplies sent south increased 122 per cent. for 1925 over 1923 (in which year there was no control), and 103 per cent. for 1925 over 1924. Limitation of agents under control, it is stated, resulted in keener competition amongst the remainder in the south. In 1921 in Melbourne choice Bananas were only worth 17/- per case; under control in 1924 as high as 32/- per case was obtained. Without control the growers to-day would still be in the 14/- to 17/- market. On the local market, in open competition, the Committee regularly obtained better prices than the agents. The Committee records its deliberate opinion that the one-floor for the sale of green Bananas is the best in the interests of growers.

Figures are submitted to establish the case for control, as advocated by the Committee, also the plans which it is proposed to develop regarding the better handling of citrus and deciduous fruits—the efforts so far having been mainly concentrated on Bananas and Pineapples. Details are given of the Committee's activities in improving grading and packing, in watching legislative and administrative matters affecting growers, advertising to increase the consumption of fruit, etc.

Throughout the report the necessity for "compulsory co-operation" is repeatedly emphasised.

The profit and loss account shows a turnover during 18 months of £32,549, and a nett profit of £9,310.

The booklet contains 68 pages, and is well illustrated. Those desiring copies are invited to write to the Manager, Committee of Direction of Fruit Marketing, Brisbane, Queensland.

* * *

## NOTES AND COMMENTS.

The foregoing summary is necessarily condensed. Stripping the report of its special pleading, it is clear from the activities recorded that much has been attempted on behalf of the growers. In this matter of compulsory organisation Queensland is making history, and growers throughout Australia have been watching the venture with sympathetic interest.

The chief criticism, however, has come from the growers themselves. In the clash of conflicting interests and opinions, it has been very difficult to obtain a dispassionate statement as to the exact position of affairs.

Even with regard to the figures compiled in the able report issued by the Committee, there is wide diversity of opinion, for instead of accepting the statement that large savings have been effected for the growers, many contend these are non-existent.

An exceedingly interesting commentary on the position is furnished by the result of the ballot just taken of Banana growers—recorded elsewhere in this issue—showing that a substantial majority are definitely opposed to Committee's actions, both as regards limitation of agents and the one-floor system in Brisbane. This is the more interesting, seeing that only two fruits—Pineapples and Bananas—have been controlled. From reports to hand it would appear that the Pineapple growers stand behind the Committee. The Pineapple, however, is essentially a cannery proposition.

Throughout the controversy which has raged—and is still raging—in Queensland, one vote is dominant—that the growers were refused the right of a ballot to say whether or not they desired compulsion. The Government brought in the Marketing Act on the advice of a conference without referring the matter to the individuals concerned. This is directly opposite to the course adopted by the Federal Government in its dealings with the dried fruits industry and others.

On the first comprehensive ballot of the Banana growers, it is seen they strongly object to the methods which have operated since the Committee took control.

It is understood that in the Amending Bill which is to be introduced into the Queensland Parliament, a poll of the growers on the compulsion clause

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is to be taken. The results will be awaited with the keenest interest.

Two other complaints are distinctly noticeable—(1) That the profit of over £9,000 is not returned to the growers; and (2) the expenditure by the Committee of about £3,500 in a fruitless law suit. Included in this sum is the amount of £1,500 costs which the Committee has to pay its opponents.

* * *

That organisation in the fruit industry is desirable is admitted on every hand. Steady progress was being made in this direction till the issue became confused, because of the abnormal increase of crops, caused largely by Government action. There are shining examples of successful organisation amongst growers in Australia, notably the co-operative cool stores for Apples, and the co-operative citrus packing sheds. In America fruitgrowers have organised in groups representing particular fruits—for each section of the "fruit" industry has widely varying needs (a fact too often overlooked). Americans, however, steer clear of "compulsory" co-operation and Government "enterprise." They rest their cause on the quality of service rendered. Further, their growers co-operate with the wholesale and retail trade, securing the maximum efficiency at a minimum cost. Dr. Cameron, the Director of Agriculture in Victoria, urges, with all the earnestness of which he is capable, that those interested in organisation in Australia should visit California, Washington, Oregon, and other American States to study the methods there adopted.

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## QUEENSLAND FRUIT MARKETING.

### Banana Growers by Ballot Request Wider Marketing Facilities.

### Setback for Committee of Direction.

### Marketing Act to be Amended.

(By Our Correspondent.)

Brisbane (October 19th).

The result of the ballot of Banana growers, taken by the Committee of Direction, shows that a big majority of the growers are opposed to the Committee's policy, both as regards the limitation of southern agents, and the one-floor system in Brisbane.

The result of the ballot, according to the report of the manager of the Committee of Direction (Mr. W. Ranger) is as follows:—

On the question of marketing in the southern States the primary votes were:—

(a) Are you in favour of limitation of agents as in force at present? .. .. .. .. .. .. .. 325

(b) Are you in favour of a number of agents of approved standing being added to the list? .. .. .. .. .. .. .. .. 310

(c) Are you in favour of the unrestricted system? .. .. .. .. 521

On this ballot 1731 ballot papers were issued, 1,233 were returned, 77 of which were informal, making an effective return of 1,156, equal to a 66.8 per cent. vote.

The second preference votes of (b) resulted in 215 to (a) and 95 to (c), making the total result:—

In favour of limitation of agents as at present .. .. .. .. .. .. 540

In favour of the unrestricted agents' system .. .. .. .. .. .. 616

The ballot on the one floor system in Brisbane resulted:—

(a) Are you in favor of the one floor system for the sale of Bananas in Brisbane? .. .. .. 167

(b) Are you in favour of open competition? .. .. .. .. .. .. 279

In this ballot 623 ballot papers were issued, 463 were returned, of which 17 were informal, resulting in an effective vote of 446, equal to 71 per cent.

Commenting on the report, Mr. Ranger states that in regard to the question of limitation of agents, 635 favored limitation in some form or other, and that 521 desired unrestricted marketing.

Growers, however, do not subscribe to this view, but point out that in an effective vote of 1,156 growers, only 325 favored (in the primary vote) the present policy of the committee, and that 831 opposed.

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With regard to the one-floor marketing system in Brisbane, 167 voted in favor of the committee's action, and 279 opposed.

The transfer of preferences shows that 540 growers preferred limitation, as against 616 who desire absolute freedom in marketing.

The Minister of Agriculture is bringing in a Bill to amend the Fruit Marketing Organisation Act, and it is understood that the question of compulsion is to be made subject to a poll of the growers concerned.

## A GROWER'S VIEWS.

### Marketing Act "an Abomination."

Mr. John D. Green, Chairman of the Ormeau Co-operative Fruitgrowers' Association, Ormeau, Queensland, writing under date, October 19th, states:—

"All my spare time has been taken up fighting that abomination—the Queensland Fruit Marketing Act—and its administration by the C.O.D.

We have this communistic monstrosity sufficiently crippled that we fear it no longer, and hope in the near future to build up a **Banana Growers' Association** that will be controlled by growers with the best business man procurable as manager.

The Fruit Marketing Act was simply bludgeoned upon the growers. They have never been afforded an opportunity of saying if they wanted it or not.

I know Messrs. McGregor and W. Ranger have repeatedly told the southern people that it was a growers' measure, and an immense success.

As a matter of fact, it was a political stunt from the start, and had they been able to maintain their position in the law courts, the communistic element would have owned us, body and soul. The C.O.D. squandered £3,625 in defending their administration in law courts. Any decent lawyer would have told them for £5 or less that they could not override the Australian Constitution.

Co-operation, to be of any value, must be founded on the growers' implicit confidence in the promoters of such co-operation. The amateurish methods of the C.O.D. in limiting southern agents, without making any provision for a better and wider distribution of sub-tropical fruits, entirely eliminated any confidence the most sanguine may have had in the committee.

A poll has recently been taken as to whether growers favored the one-floor system for Bananas in Brisbane, limitation of agents in southern states, etc. The growers voted heavily against the C.O.D. methods.

Mr. Ranger claims to have stabilised the prices of Bananas in the southern markets, yet the prices received by growers were never more erratic than under C.O.D. control. Frequently fluctuating up to 75 per cent. in one month.

The Banana growers now propose to organise separately from other fruits.

## DEHYDRATORS FOR FRUIT AND VEGETABLES.

### Modern Equipment Necessary.

The Babcock and Wilcox dehydrator, as advertised in this issue, has won a good reputation. The wide knowledge and experience which this well-known engineering firm possesses in the practise of heat transmission have been applied to the design of a dehydrator that efficiently utilises the British thermal units in the fuel to the very best advantage. Not only is the heat efficiently obtained, but a system of controlling the humidity (which is most necessary if one hopes to produce a first-class marketable product) has been introduced, and the results prove that the design is all that is required.

This type of dehydrator is not made in small sizes; the smallest has a capacity of 2 tons of green fruit in 24 hours, and the largest designed so far handles 10 tons of green fruit in 24 hours.

Trucks carrying the trays are run through the tunnel on rails, and the whole process can be carried out by one attendant.

Notwithstanding the capacity and efficiency the prices compare very favorably with any other dehydrator on the market, and readers interested are recommended to obtain full particulars and prices for their requirements from Babcock and Wilcox Ltd., Works, Regents Park, N.S.W.

## AUSTRALIAN FRUIT COUNCIL.

The fifth meeting of the Australian Fruit Council, to which reference was made in our last issue, when the resolutions were recorded was of interest in two ways. First in the amount of business transacted; and, secondly, in that it was probably the last of its kind, seeing that the Government has decided not to furnish further finance—that is, unless the growers can show cause why further financial assistance is necessary.

The reason why the business was so satisfactorily conducted, was that at the very commencement, committees of the men interested in particular fruits met separately, thrashed out their own problems, and finally brought before the full conference reports of their deliberations for the full Council's sanction.

It was the necessity for the formation of these committees that demonstrated the weakness of an all-embracing "fruit" council. When the then Minister for Customs, Mr. Rodgers, first outlined to a meeting of growers his desire to hear the "composite" voice of the industry, he was advised to let the growers speak through their sectional groups, but he remarked with benevolent despotism—"I have got you all together now, and I intend that you shall keep together."

The idea apparently was to form a "fruit" council along the lines of the meat and butter councils, but the fact of the essential differences in the fruit industry was not sufficiently weighed. The several sections have their distinct, and at times clashing, difficulties. Nevertheless, growers are grateful for the assistance rendered, for it is pointing the way to the sectional lines on which the industry will in due time be organised.

Another weakness with the Australian Fruit Council was that it was never sufficiently representative. In Tasmania, apparently, the State Fruit Advisory Board has come to

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stay, because independent finance makes this possible. In W. Australia, the Advisory Board has already been wound up. The Victorian Board has not yet won the full confidence of growers. In Queensland there is no State Advisory Board, seeing that the Committee of Direction operates in that connection. In South Australia and New South Wales Advisory Boards still exist, coincident with the existence of the growers' organisations.

Delegates from these Advisory Boards form the Australian Fruit Council.

With an organisation so loosely knit, it is small wonder that the Australian Fruit Council could never hope to fulfil the ideals of its founder.

* * *

Delegates attending the fifth meeting were as follows:—Western Australia—Messrs. F. J. Becher, Owen Sparks, A. Convoy and F. J. Simper; South Australia—J. A. Parkes, J. Donaldson. Victoria—J. W. Bailey, W. J. Foster, B. S. B. Cook and W. N. Sumner; Tasmania—J. P. Piggott, M.H.A., V. J. Skinner, F. Peacock and A. Davies: Queensland—Messrs. W. Ranger, Cathcart, Thomas and Swain; N.S.W.—N. H. Case, F. A. Nicolson, and H. G. Such. Officials—G. Quinn (S.A.), J. M. Ward and E. Meeking (Vic.), W. J. Allen (N.S.W.), P. H. Thomas (Tas.), E. McKinnon (Institute of Science and Industry), A. V. Lyon, B.Sc. (Research Farm, Merbein, Vic.).

There was much good feeling shown, and from an educational point of view to those attending, the benefits were great. On many technical questions the representative of the Institute of Science and Industry, Mr. McKinnon, gave valued advice. Regarding the export of Ohanez Grapes, West Australian delegates affirmed the bounty was unnecessary, seeing the export trade had been successfully conducted for over 15 years. Representatives of the growers on the eastern irrigation areas, however, firmly requested bounty and for research into export problems as the shipments of fruit from irrigated lands had not proved satisfactory. A resolution to this effect was carried.

The proposal for fresh fruit export control evoked much discussion, but the issue was never in doubt. Tasmanian and West Australian delegates were quite clear as to the impracticability of a Control Board to have jurisdiction over the export of Apples and Pears over such widely spread distances. The fact is sometimes overlooked that Australia is larger than U.S.A. Victorian growers, in open conference, had definitely decided against export control. South Australia, too, had registered a protest against the manner in which the "export control" subject had been brought forward.

Mr. Sparks (W.A.), in answering a suggestion as to how the item came to be placed on the agenda paper, said that apparently a sub-committee of the Fruit Council had placed it there. The suggestion, however, had not come from the growers' associations.

A resolution opposing export control was carried. The open discussion of these problems, however, can only do good, for even where a negative result is obtained, the position is thus more clearly defined.

Regarding the freight on canned fruit, Mr. Foster pointed out that the freight was unduly excessive, and that if a reduction could be made, it would enormously increase the sales.

Throughout the conference, the standard of debate was high. Regarding the future of the Council, it was decided to request for its continuance on a modified scale, and it is quite possible the Government may consent to this.

* * *

On the other hand, however, the importance of Interstate Conferences regarding the various aspects of what is really a national industry, is now fully recognised, and failing Government finance, the Australian Conference of Fruitgrowers should resume its sessions. This body has a fine record of service extending over many years.

### New Canning Device.

According to the "New York Commercial," there has recently been established at Fresno, California, a factory for the manufacture in commercial quantities of a recently invented Peach cutting and pitting machine, developed by Mr. J. P. Bem. It is expected that this machine, which is of the portable unit type, each of which will replace six or seven hand operators, will be manufactured in quantities to supply both the canning and dried fruit industries, and the Sanitary Fruit Pitter Manufacturing Co., which has taken over the American manufacturing rights, has opened offices in Fresno for this purpose.


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(Established 1906)

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Account Sales Posted Daily

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*Reference—Satisfied Growers in all States.*


### Canning with Convict Labour.

According to the "Canner," U.S.A., the State Department of Welfare of Pennsylvania has built and equipped a modern canning plant "in the effort to make the Rockview penitentiary self-supporting and afford work for its inmates."

It is stated that a full line of vegetables will be canned this season; also Apples, Apple sauce, and sauerkraut.

The firm of Messrs. Stimson and Firth, of the Bathurst-street Fruit Exchange, Sydney, has been known to Australian fruitgrowers and others for over thirty years. During that period the firm has conducted the business of fruit distributors in all classes of fruits, such as Apples, Pears, Cherries, Plums, Peaches, Bananas, Pineapples, Papaws, Strawberries, Tomatoes, etc. Every consignment receives careful and personal attention, and cheques are sent promptly after the fruit is sold. Speaking to a representative of the journal, Mr. Firth stated his firm does a very large interstate trade.

### SUBSCRIBERS' PAYMENTS RECEIVED.

The following are the subscriptions received from July 1st to August 31st for the letters M to Z. The letters A to L being published last month. If any of our readers wish to have a receipt, same will be forwarded on receipt of further word:—

Wm. Muir (March, '26), A. G. M. Mitchell (June, '25), Mildura Co-op. Fruit Co., Melb. (June, '25), Mildura Co-op. Fruit Co., Mildura (June, '26), Madden Bros. (June, '26), J. H. Main (June, '26), A. W. Mack (June, '26), May Bros. (June, '26), Moser and Stevens (June, '26), J. W. Milligan (June, '25), E. J. Moritz (June, '26), W. Maloney (June, '26), J. Mitchelmore (June, '26), A. Motschal (June, '26), W. E. Muspratt (June, '26), W. J. Mathews (June, '26), A. Malcolm (June, '26), Matthews and Sons (June, '26), J. J. Murray (June, '26), C. P. Myers (June, '26), G. A. Meier (June, '25), K. Moore (June, '26), F. W. Mann (June, '26), R. Mays (June, '26), E. Mann & Son (June, '26), Murray View irrig. Co. (June, '26), A. K. MacLean (June, '26), J. Morgan (June, '26), Moore Bros. (June, '26), A. F. Morant (June, '26), D. Martin (June, '26), W. Merchant (June, '25), McFarlane & Co. (June, '26), McIlwraith, McEacharn & Co. (June, '26), D. McKenzie (June, '26), J. E. McGregor (June, '25), W. M. McIver (June, '26), Thos. McCreanor (June, '25), J. A. Nairn (June, '26), A. Nott (June, '26), J. L. Norrie (September, '27), C. E. Norris (June, '26), C. P. Nobelius (June, '26), A. A. Newnham (June, '26), F. Neuparth (June, '26), G. A. Nobbs (July, '25), W. J. Nancarrow (June, '26), H. E. Napier (June, '26), G .V. Neuman (June, '26), H. Overall (June, '26), H. W. Olbrich (June, '26), H. Oates (August, '25), D. Ockenden (June, '26), L. Pepperell (Sept., '25), L. S. Perkin (May, '25), Dr. G. M. Paton (June, '26), R. D. Passey (July, '25), P. Pullar (June, '26), P. Penn (June, '26), W. G. Parker (June, '26), E. C. Pratt (June, '26), Pearce Bros. (June, '26), W. R. Prosser (June, '26), W. R. Ponsett (June, '26), S. J. Perry & Co. (June, '25), O. E. K. Peterson (June, '26), H. P. Paton (June, '26), Mrs. A. L. Pitts (June, '26), C. Piesse & Co. (June, '26), Port Huon Fruitgrowers' Co-op. Assoc. (June, ' 26), D. Pfrunder (June, '25), R. L. Perkins (June, '25), R. H. Pearce (June, '26), F. J. Parsons (June, '25), W. Powell (June, '26), F. Page (June, '25), Palmdale Co. (June, '25), H. Porter (August, '25), R. W. Peacock (June, '26), Seward Plush (June, '26), J. Porter (June, '26), H. S. Peterson (June, '26), Paterson & Co. Ltd. (June, '26), L. Plummer (June, '26), C. Penton (August, '25), S. Plush (June, '26), S. W. Packham (July, '25), F. T. Pullar (June, '26), J. H. Pill (June, '25), W. G. Petty (June, '25), H. E. Pickworth (June, '26), T. M. Price (June, '26), Palmdale Co. (August, '25), J. A. Parkes (June, '26), E. B. Pixley (May, '26), C. R. Ratcliffe (June, '26), R. Reid (June, '26), Rosella Pres. and Mfg. Co. (June, '26), A. B. Robin (June, '26), W. A. Rolfe (June, '26), E. J. Rule (June, '26), G. W. Robinson (June, '26), Roberts & Co. (June, '26), D. H. Ross (March, '26), C. H. Ragless (June, '26), Robinson Bros. (August, '26), L. P. Rosen & Sons (June, '26), H. G. Reynolds (June, '25), J. B. Raymond & Sons Ltd. (June, '26), J. S. Read (June, '25), Robinson & Sons (June, '26), S. G. Randell (June, '25), L. M. Robinson (June, '26), F. W. Roper (June, '26), J. B. Randell (June, '26), H. Rimon (June, '26), V. Rieschieck (August, '25), J. Robinson (June, '26), C. W. Rodwell (June, '26), G. Richards (June, '26), G. Roberts (June, '26), A. Reye (June, '26), S. Redgrove (June, '26), Rutherglen & Dist. Vinegrowers' Assoc. (June, '26), W. E. Rowling (November, '28), S. Rowling (August, '26), A. E. Ratcliffe (June, '26), R. A. Routley (June, '26), J. Rossini (June, '25), H. Rayner & Co. (June, '26), S. G. Ritchie (June, '26), J. C. Rough (June, '26), J. T. Rowe (June, '26), A. E. Standfords (April, '25), E. D. Smith & Sons (Sept., '25), F. D. Sanders (June, '25), E. Stokes (June, '26), Sarnia Packing Pty. Ltd. (June, '25), Geo. Selth & McRae Ltd. (June, '26), H. P. Smith (July, '25), S. H. Scott (June, '26), S. Stott (June, '26), S. Sandow (June, '26), R. Serpell (June, '26), Sheehan Bros. (June, '26), L. M. Shoobridge (June, '26), F. G. Scammell (June, '26), C. Summers (October, '26), J. Stevens (June, '26), W. Sandford (June, '26), A. C. Simon (June, '26), E. P. Spreckley (June, '25), J. M. Sinclair (June, '26), Mrs. Shead (June, '26), S. S. Strutt (June, '25), A. E. Stephens (June, '26), E. P. Stanton (July, '25), Shepparton Fruit Pres. Co. (June, '26), A. V. Strong (June, '26), R. M. Sheppard (June, '26), H. N. Slaughter (June, '26), C. Spencer (June, '26), P. Sommerlad (June, '25), J. Sagar (June, '26), W. Slatter (June, '26), A. Smith (June, '26), S. G. J. Shumach (July, '25), D. M. Shoobridge (January, '26), E. R. Shield (June, '25), W. M. Smith (June, '26), F. W. Schmidt (June, '26), T. Shortridge (June, '25), H.



**The Wantirna (Vic.) Exhibit which won, for the third year in succession, the competition for Novar Perpetual Shield for Cold Stored Apples at Royal Show, Melbourne.**

O. Symonds (June, '26), F. Sissons (June, '26), W. J. Sweetman (June, '26), S. C. Sellers (June, '26), J. Scharkie (June, '26), G. H. Sprague (June, '26), H. Scarlett (June, '26), A. Stein (June, '26), J. H. Semmens (June, '26), Jas. Sayers (June, '25), Wm. Smith (June, '26), C. A. Stubbington (June, '26), G. W. Summers (June, '26), H. Slade (June, '25), Bureau of Central Sugar Mills (June, '26), J. Shuker (June, '26), W. Sissons (June, '26), D. C. Sutton (June, '26), J. Scott (June, '26), O. Sparks (June, '26), G. Sell (June, '26), T. Smith (June, '26), E. E. Simpson (June, '25), A. Sloane (June, '26), A. Snelling (June, '26), A. Thompson (June, '27), A. J. Todd (June, '26), A. S. Thompson (June, '26), K. W. Nott (June, '26), E. Morley Taylor (June, '26), D. Tully (June, '26), A. H. Taylor (June, '26), F. Tucker (June, '26), L. Thompson (June, '26), A. Taylor (June, '26), F. Thomas (June, '26), Tas. Hop & Fruitgrowers' Assoc. (June, '26), A. U. Tonking (June, '26), A. F. Thiele (June, '26), J. Thomas (June, '26), Jos. Unthank (June, '25), H. Udy (June, '25), H. D. Virgo (June, '26), F. L. Vines (June, '26), L. H. Vear (June, '26), H. W. Von Bertouch (June,

(Continued on page 483.)

# SULPHATE OF AMMONIA

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### A Study of Patented Devices.

(By George A. U'Ren, Patent Attorney, "Henty House," Melbourne.)

IT is always interesting to consider a subject from the disclosures made by Letters Patent, and it is somewhat strange that radical inventive departures are not more frequently made from more or less basic or definite lines of thought. The description of the following ideas has been culled from the published specifications of Letters Patent granted in the Commonwealth. They may be of interest to orchardists and those concerned in the gathering of fruit, and perhaps will serve to excite careful and observant attention to this question.

Twenty-one years ago a pair of hand shears was devised, comprising spring controlled blades, each having a flange adapted to hold the stem of the fruit, after it had been severed. The device would appear to have been equally useful for cutting flowers.

Another idea advanced about the same period consisted of a device having a tube equipped with a spring controlled plunger rod. The rod was provided with a handle at its lower end and a pair of pivoted concave or cup-like plates at its upper end. These plates are normally apart, but when manipulated by the handle close together and sever the stem of the fruit which is retained in the semi-spherical space formed by the closed plates.

The inventor who attached a small cutting blade to a thimble probably was interested in gathering Grapes. This device also had the advantage that it could be carried in the waistcoat pocket.

The gathering of Gooseberries and the like presents a difficulty. An ingenious thought was indicated by the attachment to a saucepan of a cross bar or cutter having a comb or series of teeth. By drawing the comb against the bush or tree the fruit is severed and falls into the saucepan.

A pole having a pair of spring controlled cutters manipulated by a lever or a cord avoids the necessity of tree climbing to reach some fruits. To obviate the necessity of lowering the pole a flexible chute has been provided. This has been retained open at its upper end by a light frame. The fruit rolls down the chute when severed from the tree. Varying chutes have been suggested to prevent the fruit being bruised. Elastic bands have been used to press the sides inwardly at successive points. In another case baffles or ledges have been provided within the chute. A net has also been employed.

Another proposition has consisted in a rod or pole having a fork at its upper end at approximately right angles to the pole. The angle obviously could be variable. The legs of the fork are fixed or rigid, and may be sharpened to sever the fruit, which is received by a chute of such a nature that bruising is avoided.

Devices adaptable to any kind of fruit do not appear to have been evolved. Certainly difficulties and great differences are presented. The variation between fruit bearing trees and growths is extensive, but to the observant and keen-minded, difficulties only exist to be overcome, and fruit picking in a quick and efficacious manner to save time and labour, and prevent damage to valuable trees and plants by the unskilled is a subject worthy of attention.

---

"Fruitgrowers are up in arms against the proposed Fruit Marketing Bill," states our Mt. Barker (W.A.) correspondent.

# New South Wales.

## MURRUMBIDGEE IRRIGATION AREAS.

Leeton, 18th October, 1925.

**Apricots and Elbertas.**—The settlers' difficulties regarding the acceptance of their Apricots and Elberta Peaches by the Irrigation Commission, were settled at a mass meeting at the Leeton cannery. At that meeting the Resident Commissioner (subject to confirmation by his colleagues) agreed for the cannery to take as many Apricots and Elbertas as it possibly could for canning purposes, and to guarantee 7d. per lb. straight-out for any of these two varieties that it would be necessary for the settlers to dry process.

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Savages and animals don't go to a chemist's shop. They eat suitable herbs when indisposed. There is a herb to cure every disease, and the herbs that ensure a good digestion and freedom from liver and stomach troubles are the very herbs from which A.M.S. is compounded. Taken as directed, A.M.S. will fill you with a new joy in life—the hope and exaltation which come from splendid health. A.M.S. is not a medicine, but an aid to digestion, which cures and keeps cured. Try a bottle to-day. All chemists 3/-, or by post 3/6 from T. A. Dickson, Chemist, Geelong, Vic.

Owing to the seamen's strike, a quantity of tin plate is not available at the cannery for tin making, and this fact may possibly upset the canned fruits situation. Millions of tins will be required within, say, a month, and the employees will have all they can do at the cannery, even with double shifts, to cope with the coming season's canned fruit.

**Advisory Board to Cannery.**—The Resident Commissioner has agreed with the Settlers' representatives in regard to the appointment of an Advisory Board (selected from the settlers) to confer with the cannery manager. This concession has created general satisfaction throughout the Area, and it is hoped that the Board will sit, at least, by the commencement of the season.

**Red Scale on Citrus.**—The Yanco Fruitgrowers' Association is going exhaustively into this question by means of a special committee. Estimates for equipment to deal with the pest have been secured, and it will soon be decided whether the Association will take on the work of fumigating or whether it will elect that contractors take the business up. Where the lady birds have been in existence in citrus orchards, they have absolutely cleaned up the red scale. This is a phase of the matter the Government entomologist might well take up. If he can devise some means of attracting the lady bird or of breeding it, then he will save a heavy expense to the orchardist.

**Gypsum.**—The Irrigation Commission has finally consented to finance settlers with gypsum on three years' terms. This, of course, is a very satisfactory arrangement for the settler, and is one more instance of the exercise of tact by the Resident Commissioner.

* * *

**Griffith.**

The seventh Annual Show of the Griffith Agricultural Society, held early in October, was a splendid affair, and established new records. Horses, cattle, sheep, pigs, poultry, etc., formed the bulk of the exhibits. There was a nice display of Citrus fruits, and such as had been fumigated were of much better quality than those not fumigated. In the dried fruit section the exhibits were of excellent quality. The display of flowers was very creditable.

**Batlow Show.**—The 1926 Annual show of the Batlow Agricultural Society will be held on Tuesday and Wednesday, 16th and 17th March, 1926.


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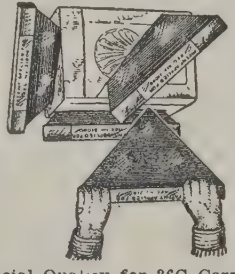
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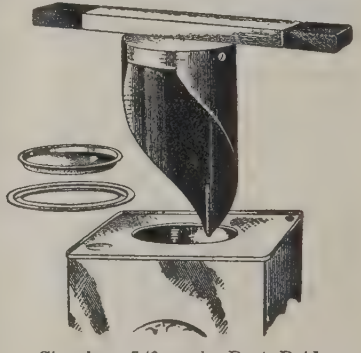
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## C. M. WEBB

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## SYDNEY MUNICIPAL MARKETS.

### Big Extension Proposed.

The Sydney City Council has received a proposal from the Works Committee in regard to extending the City Fruit Markets, involving costs of £120,000. It is proposed that the Council shall resume the area bounded by Lackey, Factory, Burns, Hay and Frazer streets, as well as the area bounded by Harbor, Little Hay, Burns and Factory streets. It is also recommended that the vegetable market be removed to the floor now occupied by the rabbit market, and that the latter be removed to the ground floor of the cold storage works.

## SCIENTIFIC RESEARCH.

### Its Importance Emphasised.

A letter is to hand from Mr. A. G. Lester (Dennys, Lascelles Ltd.) urging the great need for scientific research into fruit transport problems. With Pears and Oranges to the United Kingdom some carried well and some badly. Mr. Lester urges the breeding on Mendelian lines to improve the type of fruits grown. The Government, our correspondent continues, could do better service along these lines than by hindering private enterprise in marketing.

(Continued from page 480.)

'26), E. A. Williams (May, '25), W. H. Rathe Van Wesenhagen (June, '26), Whiting Bros. (Oct., '25), W. Wilson (July, '25), H. J. Willoughby (June, '26), W. Weddell & Co. Pty. Ltd. (June, '26), L. Winser (June, '26), G. Wood, Son & Co. (June, '26), F. C. Wood (June, '26), R. Webb (June, '26), G. L. Wishart (June, '26), C. Wedge (June, '25), E. E. Wagstaff, Melb., (June, '26), E. E. Wagstaff, Doncaster (June, '26), H. Wicks (June, '26), P. & F. Warnecke (Sept., '25), W. H. Waters (June, '26), I. Wear (June, '26), G. Western (June, '26), H. Wilkinson (June, '26), R. H. Woodland (June, '26), Wilkleman Bros. (June, '26), S. Whitten (June, '26), F. Witherby (June, '26), E. R. Ward (June, '26), R. J. Wood (June, '26), A. Wilkinson (June, '26), G. Wilson (June, '26), J. A. Williams (June, '26), W. J. Whitten (June, '26), Westralian Farms Ltd. (June, '26), Mrs. Watson (August, '25), Wilson & Johns (June, '26), W. C. Woods (June, '25), H. Wills & Co. (June, '26), G. A. White (June, '25), K. H. Webb (June, '26), C. Wilcox (December, '25), A. H. Wise (June, '26), W. E. West (June, '25), R. G. Wills (June, '26), E. W. Worthly (June, '26), W. Williams (June, '25), W. D. Wrench (June, '26), F. Ward (June, '26), Hy. P. Watt (June, '26), E. Zimmerman (June, '26), W. Young (June, '26), Young Bros. (June, '26), A. Yates (June, '26), W. M. Young (June, '26), S. Youlden (June, '26).

### Queensland.

The fact that so many Bananas from Queensland are affected with black core and the "squirter" trouble, has led to a diminution of sales, and caused prices to recede, public confidence in the fruit having been shaken.


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| Swallow & Ariell Ltd. Port Melbourne. | Carrots Turnips Cabbages, etc. |
| Woorinen Co-op. Pack. Shed, Woorinen | Sultanas Raisins etc. |
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# "FUNGOUS DISEASES of FRUIT TREES
## AND THEIR REMEDIAL TREATMENT"

By G. H. CUNNINGHAM, B.Sc.
Mycologist, Department of Agriculture, N.Z.

The carefully compiled and indexed results of five years' study and research on all known diseases attacking Pome—Stone—and Citrus Fruit Trees, their cure and eradication.

Although written primarily on conditions as obtaining in New Zealand, this book is invaluable to the Australian Orchardist. Many of the troubles dealt with are common to both countries, and the remedies offered apply to the conditions in ANY country. This is the Standard Work of the PRESENT and the FUTURE, and the question is not, "Can I afford it?" but "Can I afford to be WITHOUT it?"

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**You can't possibly go wrong**

If you invest
**£5 15s.**
in this valuable outfit—
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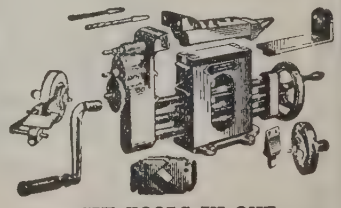
*Steward*

**"Handy Worker"**

It will pay for itself ten times over by saving time and trouble on all your repairs and odd jobs.

**GET ONE NOW FROM YOUR IRONMONGER**

Or write to the Distributors—
**McPhersons's Pty. Ltd.**
COLLINS ST., MELBOURNE



SIX TOOLS IN ONE.


Finish every day and be done with it. You have done what you could. Some blunders and absurdities, no doubt, crept in; forget them as soon as you can.—R. W. Emerson.

Be not uneasy, discouraged, or out of humour, because practice falls short of precept in some particulars. If you happen to be beaten, return to the charge.—Marcus Aurelius.

# Western Australia.

## Cultural Hints for November.

### The Importance of Thinning the Crops.

USEFUL HINTS for November in the vineyard and orchard are given by Mr. G. W. Wickens in the Western Australian "Journal of Agriculture," thus:—

Continue cultivation.

Disbud vines and thin out shoots on young trees in the orchards.

The first of the new season's stone fruits will ripen this month in the warmer districts: "Edward VII.," "Bell's November," and similar varieties of Peaches being fit for gathering before the 30th. These varieties, if not well grown, are very poor in quality and appearance, and winter pruning should have been done with the idea of restricting the trees' production by the removal of a large proportion of the fruiting wood; but no matter how carefully and well winter pruning is carried out, it will be found in a normal season that

**thinning the young fruits**

is essential if size and quality are to be obtained. This refers not only to the fruits above mentioned, but to the major portion of the kinds of fruit now being grown, and I know of no single operation in the work on the orchard that is so generally neglected as thinning out young fruits, nor one that pays better when it is efficiently done.

Fruit is sold by the pound or case in Western Australia, and just as many pounds or cases will be gathered from a tree that has been judiciously thinned as from one that has been allowed to over-crop: one fruit on the thinned tree equalling in size and weight two and sometimes even three on the tree that has over-cropped.

But quite apart from the fact that the quantity harvested is nearly the same, the large-sized, good quality fruit will always find a market and command a price where the small, hard fruit lacking in juice and appearance is difficult to dispose of at any price.

In thinning stone fruits—Peaches, Apricots and Plums—the operation should be delayed until the natural shedding has taken place. If it is done before, many fruits will be removed by hand that would have fallen naturally. The shedding mentioned will be finished with nearly all varieties early this month. No hard and fast rule can be laid down as to the number to take off; the usual advice with **Peaches and Apricots** is to space the fruits to about four inches between them, but the trees rarely fruit evenly enough to allow of this being made an absolute rule. However, they should be thinned so that room is allowed each fruit to develop to the full size for the variety without touching its neighbour, and when the fruit is borne on lateral, willowy growths, as distinct from short stiff shoots, care must be taken not to allow more weight of fruit at the ends than the wood can carry.

**Apples and Pears** grow in clusters, at times as many as five together, and according to variety these should be thinned to one or two in each cluster. In dealing with small varieties, such as Yates, especially where fruiting spurs have been developed right throughout the tree, one Apple in each cluster is enough to leave; with Dunn's this would result in the fruit being too large, and two in each cluster may be left, provided, of course, the clusters are not too close together.

Judgment must be exercised in thinning Cleos., sufficient always being left on the trees to prevent the fruit becoming oversized, for where this happens, Bitter Pit is sure to follow. Jonathans must not be thinned too heavily, or the fruit will grow large and sappy, and its keeping qualities be spoiled.

For the grower who is a novice at thinning, and fears when he looks at the ground after he has been at work on a tree for some time that he has


# Special Notice to Fruitgrowers

In response to numerous requests from growers for information as to who are members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA, the following list is given. All are members of the above Association, and are registered firms:—

**H. M. Wade & Co.**, 471 Flinders Lane, Melb.
**T. Stott & Sons**, 11 Western Market, Melb.
**F. Booth & Sons**, 15 Western Market, Melb.
**H. L. E. Lovett & Co.**, 410 Flinders Lane, Melbourne.
**A. E. Pitt**, 12 Western Market, Melbourne.
**J. Davis**, 13 Western Market, Melbourne.
**G. Woolf & Sons**, 3 Western Market, Melb.
**W. S. Tong**, 4 Western Market, Melbourne.
**Silk Bros.**, 441 Flinders Lane, Melbourne.
**J. G. Mumford**, 449 Flinders Lane, Melb.
**J. W. Ross**, 6 Western Market, Melbourne.
**W. Sweeney**, 14 Western Market, Melb.
**J. H. Young & Co. Pty. Ltd.**, 7 Western Market, Melbourne.
**D. Smith Pty. Ltd.**, 480 Flinders Lane, Melb.
**Silbert, Sharp & Davies Pty. Ltd.**, 17 Western Market, Melbourne.
**A. Millis & Sons Pty. Ltd.**, 5 Western Market, Melbourne.
**W. A. Watkins**, 62 King Street, Melbourne.
**P. A. Patrikeos**, 31 William Street, Melb.

The whole of the QUEENSLAND FRUITS sold in Victoria, is handled by members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA, under appointment by the Committee of Direction of Fruit Marketing, Brisbane, Queensland.

GROWERS PROTECT YOURSELVES by consigning to members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA.

Correspondence is invited by the Association.

J. D. FRASER, Secretary, 325 Collins Street, Melbourne.

sacrificed too much of the crop, the best plan by far is to count the fruits he has left on one of the main limbs, and gauging the strength of the limb and vigour of the tree he will know by the number of fruits whether he has taken too many or too few, calculating what number of the variety in question is required to fill a case when they reach maturity. I may say here that the beginner nearly always errs on the side of leaving too many on the tree.

In thinning Apples and Pears, which, as stated above, grow in clusters, care must be taken to remove the fruits and leave the stems attached to the spurs. If the stems are taken off with the fruits, the whole cluster is weakened, and the remaining fruits are liable to fall at a later date. With practice it is comparatively easy to take hold of an Apple and bend it upwards in such a way that the stem parts readily from the fruit, but this can be done only if thinning is being carried out when the fruits are still quite small, or are naturally long-stemmed varieties. If they are short-stemmed, like, for instance, Jonathans, and the Apples in the cluster are touching each other, it is nearly impossible to remove one with the fingers without endangering the safety of those left behind. A small pair of scissors with blunt points makes a useful tool; a Lemon clip can also be used, or a sharp budding knife in skilful hands performs the work rapidly and well.

**Fruit fly** requires unremitting attention this month, the only difference being that there are more kinds and varieties of fruit now requiring attention.

**Pear Slug** will put in an appearance early in November, Pears, Plums, Quinces and Cherries being the main kinds of trees affected. Spray with arsenate of Lead, 2½ lbs. in 50 gallons of water, excepting in the case of Cherries, which are ripening. These must be left until after the fruit is gathered or the spray will disfigure them.

**Su'phuring for Oidium** on the vines should be continued wherever the fungus shows up.

* * *

### Mount Barker Notes.

**The Past Season.**—Most growers are well satisfied with the results of last season's export prices. Consignments have generally realised more than the prices buyers were prepared to give for fruit on rails. One or two shipments did not carry well, particularly Pears. There still seems room for improvement in this branch of carrying.

Average prices for this district were:—Jonathans, 16/-, 17/6; Cleos., 16/-, 19/-; Dunn's, 16/-, 20/-; Granny Smith, 16/-, 25/-.

**Weather.**—After one of the driest Augusts on record, the district is still below the average rainfall. Good rains were experienced through September, and the weather at present still remains too unsettled for the blossoming period.

**The Coming Crop.** — While too early for a real forecast, crops generally should be well up to the average. **Stone fruits** are heavy, and nave set well. **In Apples,** Cleos., Jonathans, Granny Smiths and Yates appear to be in for a good crop, but Dunn's and Rokewoods will be light. Pears are also blossoming heavily.

**Pests and Diseases.**—Some growers have given the new parasite, aphelinus mali, a good testing, but do not appear to be impressed with it, and have had to spray again for woolly aphis, the parasite failing to hold its own. This may, of course, be due to the parasite not being thoroughly acclimatised.

**Black Spot** in Pears was very prevalent last season, due to moist weather during the summer, many growers are favourably impressed with Shloeshing's Bordeaux powder. Being easy to mix, and comparatively of a regular strength, it certainly saves a grower a good deal of extra work. Some growers assert that it has less tendency to russet fruit than the home-made Bordeaux. It has also among its ingredients a very efficient spreader. Last season, the Department of Agriculture experimented as to the efficiency of spraying to prevent the crackling of Dunn's Apples, but have come to the conclusion that it has no effect.

**General News.**—Fruitgrowers are up in arms against the proposed Fruit Marketing Bill now before the House. Beside this Bill, the Queensland Act is innocuous. The Bill seeks to control all fruit, vegetables and other produce of the soil; to tell a grower, how, when, where, and to whom he must sell; to pool proceeds; to do away with gluts. (But how? nobody knows). Every effort is being made to exempt Apples and Pears at least from the Bill.

Mr. A. T. Booth, the manager of the Co-operative Co., is due back this month, and it is expected that he will have much of interest concerning the fruit industry generally to tell growers.

### A Handy Tool.

A useful tool for cutting corrugated iron, petrol and kerosene tins, for making seed trays, buckets, carriers, sieves, etc., is Webb's patent two-way knife. It is simple to use, being necessary only to place the point of the knife in the centre of the cut to be made, and to press quickly and firmly. There is no danger of cutting the hands.

Kerosene and other tins can be converted into many useful articles in the orchard and farm, such as seedling boxes, buckets, etc., as well as shelf brackets for fixing on brick walls, dustpans, sets of draws, trays, sheet tin and carriers, or for cutting up old and dirty tins to save space and cartage. Illustrations are frequently published showing useful articles made from petrol tins, and this knife enables these to be made quickly and without fear of cuts from the tin.

For further particulars see the advertisement of Clive M. Webb, 36 Paling-street, Leichhardt, Sydney, N.S.W., on page 484.

"GREEN CROSS"
Arsenate of Lead
. . Powder . .
For
Wet Spraying or Dry Dusting
DOES NOT BURN
or
WASH OFF.
Mixes instantly and remains uniformly suspended in Spraying Tank.
* * *
1 lb. of Green Cross Powder is equal to from 2 to 3 lb. of the best Arsenate of Lead Paste.
* * *
25 lb. Drums . . . . 1/10 per lb.
50 lb. „ . . . . 1/9½ „ „
100 lb. „ . . . . 1/9 „ „
200 lb. Barrels . . . . 1/8 „ „
Welch Perrin & Co.
Pty. Ltd.
48-56 QUEEN'S BRIDGE ST., SOUTH MELBOURNE.

We place your Fruit on the markets of BRITAIN direct.




FOR PROFITABLE RESULTS — consign your fruit to

# The "White" Service

**KEELING & WHITE Ltd**
Monument Buildings,
**LONDON, E.C.3**
Cables, "Keeling, London"

**WHITE & SON LTD.**
**HULL**
Cables, "White's, Hull."

**ROGERS, WHITE & CO.**
**Victoria St., Liverpool**
Cables, "Rita, Liverpool."

**White & Leatherland**
St. Andrews Street,
**NEWCASTLE-ON-TYNE**
Cables—Confidence, Newcastle

Australasian Agents—
VICTORIA:
PARNHAM PTY. LTD.
60 Queen St., Melbourne

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SOUTH AUSTRALIA:
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Grenfell St., Adelaide

WESTERN AUSTRALIA:
PATERSON & Co. Ltd.
E.S. & A. Bank Chambers,
Perth

NEW ZEALAND:
J. A. REDPATH & SONS Ltd.
181 Cashel Street, Christchurch
17 Johnston Street, Wellington
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SHIP VIA MANCHESTER
TO AND FROM INTERIOR POINTS
MANCHESTER
THE BEST ROUTE TO THE HEART OF ENGLAND



SOUTH QUAY, No. 9 DOCK
MANCHESTER

REDUCE TRANSPORT COSTS BY DIRECT SHIPMENT
TO ONE OF THE WORLD'S GREATEST MARKETS

*Representative in Australia and New Zealand:*
Captain W. J. WADE, 8 BRIDGE STREET, SYDNEY.

## AUSTRALIAN FRUIT EXPORTS.

### Prospects for 1926.

Preliminary preparations are already in hand for the 1926 export season. Crop reports so far indicate normal yields, which may mean that approximately the same quantity will go forward in 1926 as in the 1925 season.

There has so far been an absence of seasonal disorders, such as a visitation of Black Spot, thus the quality should be high.

Growers are busy with arrangements for supplies of cases.

The shipping strike which has held up so many British ships in Australian waters, is a disturbing factor, for the normal running having been so seriously interfered with, it has been impossible so far to draw up the preliminary programme which is usually completed before this.

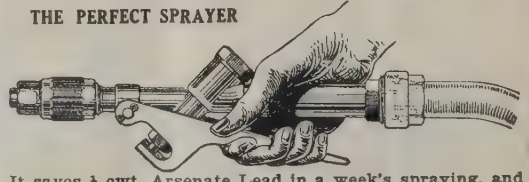
Reports from U.S.A. and Canada indicate a crop approximating last years; thus there should be a fair run for the 1926 Australian export, as was the case in the 1925 season.

In view of the satisfactory returns for the Apples exported last season, growers are in good heart, and are showing some of that enthusiasm which was so noticeable in pre-war days.

It would be splendid if the problems surrounding the export of Oranges, Pears and Grapes (particularly from irrigated areas) could be made the subject of special scientific research, with a view to finding a solution to the present trouble.

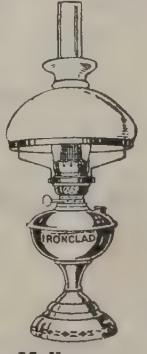
"EDGELL" Patent Spray Pistol

THE PERFECT SPRAYER



It saves ½ cwt. Arsenate Lead in a week's spraying, and pays for itself. **Price, £3.**

The "IRONCLAD" Incandescent Kerosene Lamp




**Burns 94 per cent. air, burns for nearly 8 hours on one pint of oil. Gives twice the light of ordinary lamps.**

**ALADDIN Mantles, Chimney Wicks, etc.**

**Old Lamps made new. Miller and Rochester Lamps converted to Aladdin.**

**Victorian Agent:—**

**T. W. SANDS, 372 Lonsdale St., Melbourne**

**Hurricane Lamps and all Air Gas Mantles and Generators stocked.**

# FRUITGROWERS!

IN SHIPPING YOUR FRUIT TO

# The North of England Fruit Brokers Ltd.

# MANCHESTER

YOU ARE REACHING 10,000,000 CONSUMERS WHO ARE NEARER TO OUR SALEROOMS THAN TO ANY OTHER SOURCE OF SUPPLY.

BY USING OUR SERVICE, YOU ELIMINATE CHARGES, WHICH ARE INCURRED IF FRUIT IS SHIPPED TO THIS VAST POPULATION THROUGH ANY OTHER ROUTE.

**Consign via—THE MANCHESTER SHIP CANAL to Britain's Great INLAND PORT and MARKET**

For Shipping Space, Advances, Etc., Apply—

**Principal Australian Agent: NOEL V. WADE, 8 Bridge Street, Sydney, N.S.W.**

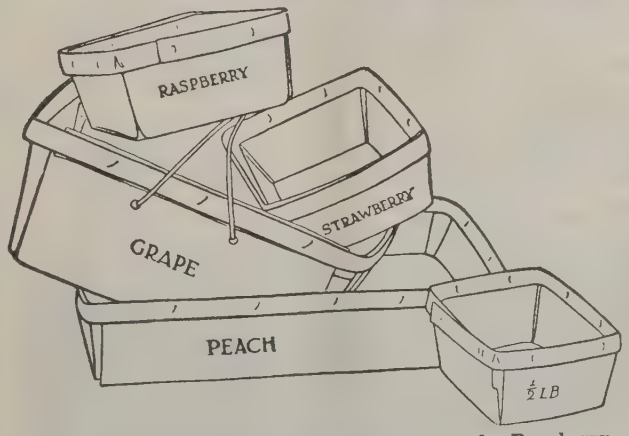
VICTORIA.—F. W. VEAR, 49 William Street, Melbourne.

SOUTH AUSTRALIA.—GARDENERS' SUPPLY STORES CO-OPERATIVE SOCIETY LTD., New Market, Grenfell Street, Adelaide.

TASMANIA.—THE PORT HUON FRUITGROWERS' CO-OPERATIVE ASSOCIATION LTD., Hobart.

# Berry Growers! Peach Growers! Grape Growers!

## Pack Your Fruit Attractively and Half Your Battle's Won




Strawberry, Loganberry, Blackberry and Raspberry Punnets and Baskets always on hand.

**BETTER PACKING MEANS BETTER PRICES.**

Here are illustrated the "Chip Punnets" and Baskets used with such success by English, French and other Continental fruitgrowers.

Packed in these attractive containers your fruit will arrive sound, clean and undisturbed, presenting an enticing appearance to buyers.

Pack your fruit yourself! We can supply Punnets or Baskets to hold from 4lbs. to 8lbs. or more.

Sturdy, let light in construction, they will protect your fruit, carry well, and, opening up attractively, will command the highest prices.

Write for Prices and Particulars as to sizes, etc., to—

## AUSTRALIAN BERRY BASKETS COMPANY

Stock Exchange Building, **422-428 Little Collins St., Melbourne** Tel. Cent. 8898

## MANCHESTER.

### An Important Distributing Centre.

The Port of Manchester offers big attractions to fruitgrowers and exporters in all parts of the world, on account of its superior dock equipment for dealing with perishable produce, the distributive basis it affords, and the position it holds as a great emporium.

Manchester is the commercial centre of the United Kingdom, states Capt. Wade, of Sydney, and has a population of over fourteen millions of people within a radius of 75 miles of its docks; this represents a greater number of consumers within easy distributing distance than that of any other port in the world.

As showing the importance of Manchester in relation to the importation of fresh fruit, the total quantity landed at Manchester Docks during the first year the ship canal was opened—i.e., 1894—was about 21,000 tons; during each of the last three years direct imports had increased to approximately 100,000 tons, representing upwards of two million packages of fruit per annum.

The bulk of the imports consisted of Apples from Canada and America, and Oranges, Lemons and other fruit from Spain, Sicily and Egypt; Tasmanian Apples and Oranges from Jaffa and South Africa are also imported direct, and, from the small beginnings of the early years, such rapid progress has been made that Manchester has become one of the most prominent markets in the country for imported fruit owing to its strong position as an economical distributing centre.

Sales are held regularly twice weekly throughout the year in special auction rooms situated near the docks; these rooms are designed and equipped with a view to the rapid conduct of business, and buyers attend from all the principal centres in the northern and midland counties. Samples of fruit are conveyed from the docks to rooms situated under the saleroom, and connected with it by means of hydraulic lifts, which convey a sample from each lot to a position in the centre of the room in full view of the buyers.

At a recent sale 101,663 packages were sold in six and a half hours, of which quantity one broker alone disposed of 33,000 packages in three hours twenty-five minutes. This serves to indicate how keen is the demand, and how expeditiously the business is conducted.

Railway companies' messengers and motor transport agents are in attendance during the sales to receive buyers' instructions, and it frequently happens that before the buyer leaves the saleroom the greater portion of his purchases have been loaded into railway waggons or road motors at the docks, and despatched to inland destinations.

The United Fruit Companies of Nova Scotia stated in a recent Annual Report:—

"We received less reports of 'slacks' from the Manchester market than from any other, probably owing to the fact that the Manchester Ship Canal Co. have such wonderful facilities for discharging and handling shipments of fruit to customers, and we hope the time is not far distant when better facilities will be had on the other markets."

Whilst shipments of fruit arrive all the year round, the heaviest imports are received in Manchester between September and April inclusive; as indicating the magnitude of the trade, the following quantities were imported during the period referred to in 1923-24:—

Valencia Oranges, 527,481 cases; Lemons, 52,441 cases; Apples, 339,649 barrels, 251,509 cases; Grapes, 59,026 barrels; Jaffa Oranges, 268,484 cases; Pears, 7,657 cases; Fruit—various, 53,534 cases.

In addition to fruit imported direct, large quantities, which arrive by road or rail via other ports, are distributed through the Manchester wholesale fruit market; it frequently happens that much of this is bruised or otherwise damaged by manifold handling in the course of transit, so that in addition to incurring unnecessary transport charges, its value is seriously deteriorated.

Expense and damage are obviated by direct shipment, for up-to-date equipment is provided at Manchester Docks

Always Reliable

*Telephone: F 3930*

**FRUIT**

*received and forwarded to all parts of*

**The Commonwealth and Overseas**

by

**F. CAVE & CO.**

**PTY. LTD.**

*Wholesale Fruit Merchants and General Agents*

Western Markets, Melbourne

*Postal Address:* — **50 WILLIAM STREET, MELBOURNE**

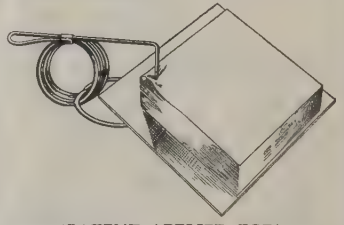
*Exporters of Choice Australian Fruits*

*Supplies of Tasmanian Woodwool always available, equal to best imported*

Cable and Telegraphic Address:—"CAVECOFRUT," MELBOURNE

*Suppliers of all Orchardist's Requisites*
*New and Secondhand Cases always on hand*

**The "CROFT" Paper Holder**



(PATENT APPLIED FOR)

**FILLS A LONG-FELT WANT**

Securely holds Wrapping Paper, and is self adjusting, as the sheets are removed.

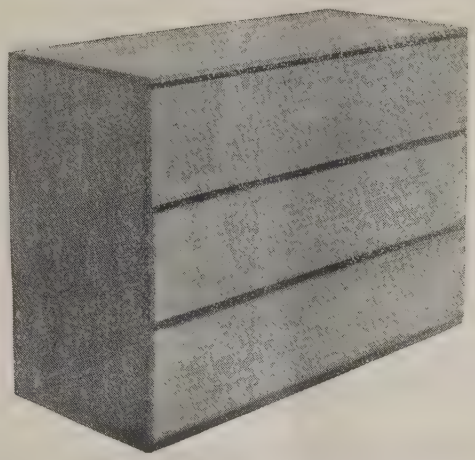
This was recently invented by Mr. Arthur Croft, Engineer of the Harcourt Cool Stores. That it is a valuable aid to the fruit packer is proved by the large number of growers in the district who are now using it.

**Price, 5/6. Postage 4d.**

**Agents Wanted in All States**

**F. R. MELLOR**

**440 ELIZABETH ST., MELBOURNE**



Australian Apple and Citrus Dump Bushel Case.

# SOFTWOOD CASES

(IMPORTED)

*Cheaper than hardwood if exported.*

*Cut to Australian Standard Sizes*

**DUMP BUSHEL** with one piece top and three equal piece side

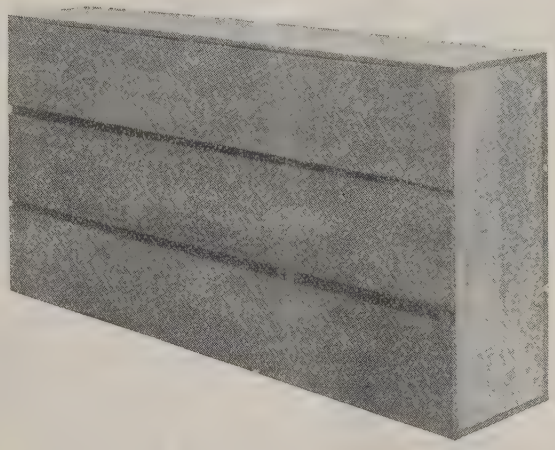
**UPRIGHT BUSHEL** with one piece top and three equal piece side

**DRIED FRUIT CASE** with one piece side and two equal pieces tops and bottoms

**CANNED FRUIT** with one piece side and two piece tops and bottoms

## SOME ADVANTAGES IN FAVOR OF IMPORTED CASES

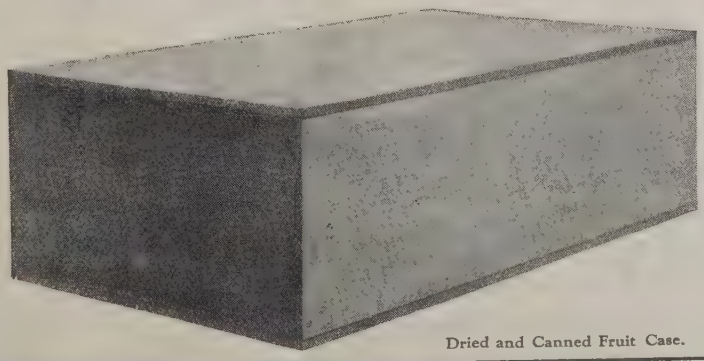
(1) *Full drawback of duty allowed on all cases exported*
(2) *1/3rd less freight than on Hardwood cases*
(3) *25% rebate on rail freight for full trucks*
(4) *All timber cut to exact sizes making it an easy matter to assemble a symmetrical case*
(5) *Every piece of timber fit and ready for use, thereby eliminating waste*
(6) *Can be supplied in shooks, or made up and branded*



Upright Bushel Case with Centre Partition.

**Particulars from the Largest Importers**

# Overseas & Interstate Trading Co. Ltd.



Dried and Canned Fruit Case.

52 Market Street,
Melbourne

*Phone Central 9110*

Also
King William Street,
ADELAIDE

for handling fragile and perishable cargo, and the facilities for transfer of cargo direct from steamers' hold to railway waggons or road motor vehicles are admittedly superior to those provided at other ports.

The fruit market at Manchester, previously referred to, covers an area of 6 acres under one roof, and amongst markets in the United Kingdom ranks next to Covent Garden, London, as regards the magnitude of the business transacted.

Unfortunately, circumstances prevented the Australian steamship agents from offering facilities last season for direct shipment to Manchester by the usual fruit carrying steamers, but providing the present calamitous "hold-up" of overseas shipping is overcome at an early date, there is a favourable prospect of direct Manchester tonnage being available from Tasmania and Australian ports during the forthcoming export season.

The foregoing are a few of the advantages which the port of Manchester offers to fruitgrowers and shippers, and those who desire to take advantage of the excellent outlet which this great market affords, should apply early to the steamship agents and insist on tonnage being made available up to the extent of their requirements.

---

### Ain't It the Truth?

"But, ma, Uncle Ajax eats with his knife."

"Hush, dear, Uncle Ajax is rich enough to eat with a fire shovel if he prefers to."

### CENSUS OF THE PLANTS OF VICTORIA.

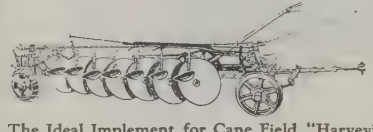
Two years ago we reviewed the above publication issued by the Field Naturalists' Club of Victoria, which was a complete list of the plants of Victoria with botanic and common names, and their regional distribution. The Plant Names' Committee of this Club is keeping this census up to date by compiling further records of new plants and new localities. A supplement to the Census has just been issued, bringing the book up to date. The supplement is three-paged, and lists nearly thirty newly recorded plants. A large number of new localities are listed; and there is also a long list of corrections to the original Census. The new Supplement is issued by the Club at the cost price of three halfpence, with postage added.


# The New "Harvey" Tractor Ploughs & Cultivators

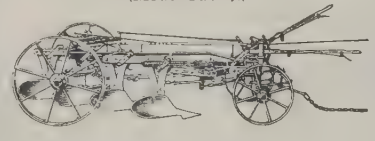
ELIMINATE MISDIRECTED ENERGY
WASTE TIME and NEEDLESS STOPS

**"Harvey" Power Lift Tractor Drawn Implements are always ready & simple to operate**

**Made in sizes from 2 to 7 Furrows.**

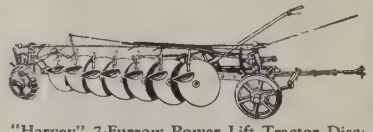


The Ideal Implement for Cane Field "Harvey" 4-Furrow Power Lift Tractor Plow (Model H.D 4.)

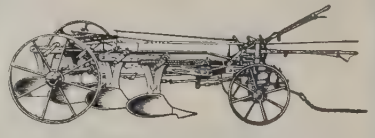


"Harvey" 7-Furrow Shortboard Tractor Plow, fitted with D Steel Shares and Circular Coulters. (Model D2).

"HARVEY"
STUMP-JUMP
POWER-LIFT
TRACTOR
- PLOWS -
are
Made in Sizes of 3-7 Furrows
& Fitted with 'D' Steel Shares



"Harvey" 7-Furrow Power Lift Tractor Disc Plow (Model H.D4.)



"Harvey" 4-Furrow Stump-Jump Short-board Tractor Plow. (Model S.J21).

There is a "Harvey" Implement for every purpose on the
ORCHARD, VINEYARD OR SMALL FARM

Spare Parts Obtainable at Shortest Notice

Send for Catalog and Descriptive Matter of our Complete Range of Implements.

**D. HARVEY,** Implement Manufacturer **BOX HILL,** MELBOURNE

*Show Room:* F. R. Mellor, 440 Elizabeth St., Melbourne

# DEHYDRATORS

MADE BY

BABCOCK & WILCOX LTD.

HEAD OFFICE AND WORKS:

REGENTS PARK - - N.S.W.

THIS World-famed Firm of Engineers has patented and made to order the **"Ideal"** Dehydrator, suitable for drying all kinds of Fruit and Vegetables. It consists of a steel tube heater, tunnel and fan, with return hot air ducts, *enabling the HUMIDITY to be regulated* to best suit the product.

WHERE IT HAS BEEN INSTALLED THE USERS are DELIGHTED WITH THE RESULTS AND THE DURABILITY OF THE APPARATUS

*FULL PARTICULARS AND PRICES FROM*

BABCOCK & WILCOX LTD.

## FRUIT TREE NURSERY REPORT.

### John Brunning & Sons, Somerville, Vic.

In an interesting letter, dated October 15th, Messrs. John Brunning & Sons, Nurserymen and Fruitgrowers, of Somerville, Vic., write:—

In the nurseries we had a better season than for a couple of seasons past, many planters recognising that the export trade in fruit is on the high way to successful expansion, are going in strongly for the standard varieties.

**Apples.**—Jonathan, Dunn's, Cleo., Granny Smith, Five Crown, Rome Beauty, and a few other main varieties, which are suited to the various districts.

For cool storage, in addition to the above varieties, where suitable to district, Yates and Tasma are the favored varieties.

**Peaches.**—In canning varieties we were cleaned out. Another instance, showing valuable expansion in the export trade of tinned fruits. White-fleshed varieties for home markets were in good demand—Briggs' Red May still maintaining the lead, closely followed by High's Early Canada and Hales' Early.

**Plums.**—Some varieties were in heavy demand, and supplies got low towards the end for main varieties. President, Coe's Golden Drop, Grand Duke being the leading lines to go.

**Prunes.**—De Agen, Robe de Sergeant, Silver, Sugar and Splendour were in keen demand, supplies just covering demand.

**Japanese Plums.**—There was a good average demand.

**Apricots.**—Just like Peaches two years ago, Apricots are at present just under a temporary cloud, but the cycle of time will go to prove that they will come into their own again. Last year the prices for the fruit were low, but indications for 1926 crop point toward fruit prices being high, with a much smaller crop to handle. Those planting now will reap the benefits later on, when supplies are short.

**Cherries.**—We just had enough for requirements, except two varieties—Early Purple Guigne and Burgsdorf Seedling—of which we had a short supply in the start of the season.

**Nectarines.**—These are in favor; Goldmine, New Boy, Victoria Rivers, Early Rivers, being the largest sales, others being available in smaller quantities only.

**Quinces.**—Having an extra large stock, sales didn't quite dispose of the surplus.

**Almonds.**—Most varieties had a ready sale.

**Walnuts.**—We disposed of large quantities. Growers are beginning to realise the value of good returns on their outlay.

The past season was against a successful year. The long wet, cold spring had its effect upon the trees, which reflected again on the fruit—Black Spot being hard to check, owing to the bogginess of the ground, making spraying a difficult proposition. However, fruit from cool store realised good prices, compensating for the hard times earlier in the year. Taking it all round, we had a very good average year.

### Prospects for 1926.

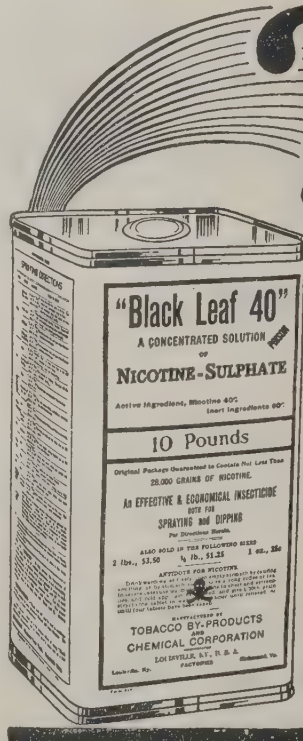
Everything is going so well that 1926 has every indication of being a record year. The fruit trees in the orchards are showing abundance of bloom. What with liberal use of manure, red oiling, a beautifully dry winter, ploughing under good conditions, spraying in ideal weather; well, one, in thinking of the future, couldn't be a pessimist if he tried!

Trusting to past experience, we planted ready for 1926 an extra supply of fruit trees, for we feel that growers, having got over the reaction of war conditions, are looking into the successful future, and will want more trees than are available in Australia.

---

A man was on his knees asking a girl to be his wife. "No, I can't marry you," said the girl, "because I don't love you. Besides, I am a tattle-tale. I have a frightful temper, and I hate all kinds of housework."

"Well, then," said the man; "now that I am in the attitude of supplication, I trust you will not object to my offering up a prayer for the man you will marry."


Why be satisfied with dwarfs and culls

Protect your fruit and rid your orchard and garden of Aphis and similar destructive insects at a cost of only a few cents a tree. "Black Leaf 40," the "Old Reliable" nicotine spray, is recommended by Agricultural Colleges and Experiment Stations. Spray singly or in combination with solutions for scale, codlin moth and other orchard pests.

*Sold by leading Australian and New Zealand Dealers*

Tobacco By-Products and Chemical Corp.
Incorporated
Louisville, Ky., U. S. A.

"Black Leaf 40"
40% Nicotine
Kills Aphis

# Edward Jacobs & Sons

## Covent Garden Market, London

### Solicit Consignments of Tasmanian Fruit

The high standing and long experience of this old established firm are sufficient guarantee to growers that all fruit entrusted to their care will return the highest market values together with prompt settlements.

**Tasmanian Representatives:**

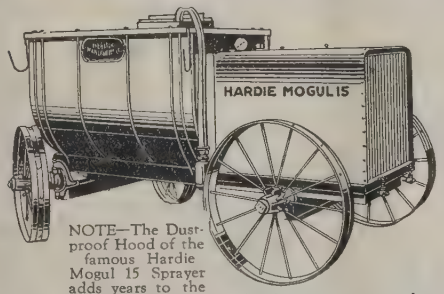
**JOHNSTONE & BENNETT, 27 Argyle Street, HOBART**

**Shipping No. 418.**



# ONLY THE HARDIE

## Has these Important Features




NOTE—The Dust-proof Hood of the famous Hardie Mogul 15 Sprayer adds years to the sprayer life. Beneath this hood is the greatest power plant ever put into a sprayer. Send NOW for our latest catalog Learn about the many improvements and splendid all-round construction of the world's best—

**DEPENDABLE HARDIE SPRAYERS**

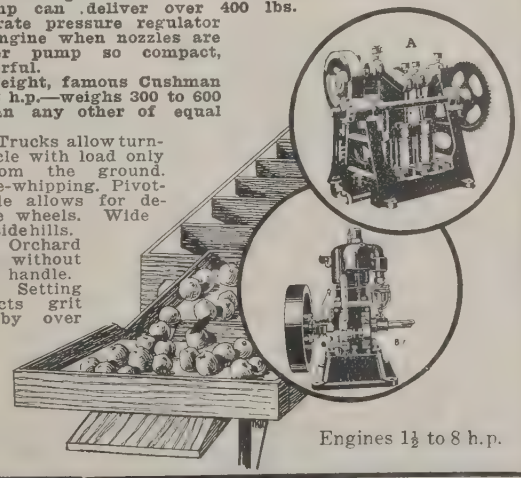
**(A) Pump Eliminating 90 Per Cent. Wear: Plungers have two soft packings to guide them; all wear comes on these; replaceable in two minutes. No crosshead or guide. Porcelain-lined cylinders. Bronze bearings. Extra heavy crank shafts. Machine-cut gears. Friction so light, pump can be turned by hand and keeps running a stroke or two after release; yet pump can deliver over 400 lbs. pressure. Accurate pressure regulator takes load off engine when nozzles are closed. No other pump so compact, durable or powerful.**

**(B) Light Weight, famous Cushman Engine 1½ to 8 h.p.—weighs 300 to 600 lbs. less than any other of equal power.**

(C) Auto-Plex Trucks allow turning in 20-ft. circle with load only 12 inches from the ground. Eliminates pole-whipping. Pivoted front axle allows for depressions. Large wheels. Wide track—safe on side hills.

(D) Hardie Orchard Gun stays set without holding control handle.

(E) Suction Setting Chamber collects grit not excluded by over head suction.




Engines 1½ to 8 h.p.

Orders indented direct from America saves the Orchardist the upkeep of the City Houses.

Write now for Catalogue to **L. E. QUARMBY**

**Economic Stores - BATLOW, N.S.W.**




## Poultry Notes

(By A.E.)

### Poultry Parasites.

As mentioned in last issue, parasites will make their appearance with the hot weather, and extra attention should be paid to them.

In treating birds for these parasitical pests, different treatments should be adopted for each, owing to their differing habits.

The hen body-louse and like species live entirely on the skin of the fowl, and are mostly found in the cavity under the root of the tail, and to a lesser extent about the body.

This parasite lays its eggs at the base of the feathers, principally about the posterior parts of the bird and sometimes under the wings.

In cases of heavy infestation they appear clustered about the base of the feathers against the skin and the main thing to be remembered in dealing with this parasite is that it is useless to spray houses or oil perches in an effort to control it.

The most efficient method of clearing those fowls infected is to either clip off the masses of eggs, or touch them very lightly with salad oil.

Kerosene should never be used, as it burns the skin.

If these control methods are overlooked, and the parasites hatch out, there is nothing equal to flowers of sulphur dusted through the feathers as an effective insecticide.

To do the job thoroughly, the sulphur must be worked right in to the skin.

The process should be repeated in about eight days, when the trouble should be at an end for the time being.

An excellent preventive will be found in adding flowers of sulphur to the dust bath.

### VITAMINS AND CHICKS.

The rapidly developing chicks must have vitamins. They are obtained only in natural foods, green stuffs and the like.

Give it to them chopped; it is easier for them to get at it that way. From the green stuff they receive they will obtain most of the essential minerals necessary to building a healthy bird.

Both growing chick and laying hen need lime in assimilable form. Again, green feed will provide this essential bone and shell forming element, so keep them well supplied.

Plenty of green food is doubly necessary in the warm weather; it helps them to resist the heat, and keep cool, so keep the supply plentiful and constant.

Where there is no possibility of the birds getting at food in a natural way, it is a good rule to err on the side of over-feeding than not to give them sufficient.

### NUTRITIVE NOTES.

Growing chicks now need constant attention. They are your future revenue getters, so your extra care will be well repaid.

* * *

Keep the birds in healthy surroundings, as the prevention of disease is not only true economy, but eliminates the worry and extra work that always arrives with sickness in the flock.

* * *

A constant supply of chick food should be kept up to the young chicks —keep them growing.

### 'WARE CATS AND RATS.

Keep a watchful eye on the chicken coops for marauding cats. Some cats will not hesitate to kill and eat chicks if they are given the slightest opportunity.

Rats, too, will play havoc in the run, so be on the alert for any signs of their visitations. If any holes are observed under boxes or other likely entrances, fill them up the first time, and if opened up again the next night set a rabbit trap right in the hole, just as you would to catch a rabbit.

This dodge seldom fails.

Another plan that will prove a good deterrent to rodents is to spread sulphur about the chicken house. Rats have a keen sense of smell and a strong objection to sulphur.

## Bee-keeping Notes

### MAKING A START.

One of the first steps to be taken by those desirous of becoming bee-keepers is to get hold of a good book on the culture of bees, and to study it carefully.

There are several books from which a choice may be made. One that deals with this subject very fully under Australian conditions, and therefore to be recommended is "Money in Bees in Australia," by Tarlton—Rayment.

It is also a good idea to join the local bee-keepers' association, as in this way much advice and information can be obtained.

Invariably the secretaries of such associations will be able to furnish names of local expert bee-keepers, and they will be found to be only too delighted to impart any advice, and give any help needed by an enthusiastic beginner.

At the meetings of the association much helpful information may be picked up as to the requirements of local conditions, methods of marketing, etc., and in many other ways.

The prospective bee-keeper will be well advised to make haste slowly. Beginning with not more than a couple of colonies, he can satisfy his innate curiosity as to bees and their ways, and incidentally get some honey.

He should increase the number as he acquires experience, and becomes more capable of dealing with what might be large enough to earn the name of "bee-farm."

**Location.**

One of the first essentials is, of course, a suitable location, anywhere won't do.

Proximity to cities means generally a lack of suitable pastures and the risk of bees getting diseased is considerably heightened.

In fruitgrowing districts admirable opportunities present themselves, as most orchardists welcome the presence of bees as Nature's best fertilisers amongst their fruit blossoms.

In some districts, Mildura for instance, there are somewhat restricting local by-laws as to keeping bees close to the vineyards during the drying season, but otherwise this district presents splendid opportunities, and the reason for the by-law being something of a fallacy it looks as if the restrictions bid fair to being removed.

The vast Eucalyptus forests in the State of Victoria or the Lucerne fields of N.S.W. and Victoria are where the prospective bee farmer will find his greatest opportunity.

(Continued on page xvi.)

# 168 EGGS A MONTH



## 7 Fowls—July 1st to December 31st

SUCH an average as the one quoted above is an extraordinary achievement, and, at the same time, an astounding revelation of the value of Karswood Poultry Spice, on which the fowls in question were fed. A further testimonial has been received from the same man disclosing the fact that during January the same hens laid 173 eggs.

These two testimonials, which we have pleasure in quoting below, show that a regular supply during the hot and cold months, is definitely obtainable by the use of Karswood, and at a cost which is but one halfpenny a day for 12 birds.

### PRAISE FOR KARSWOOD.

Record for 5 White Leghorn Hens and 2 Black Orpingtons, for 6 months from July 1st to December 31st, 1,009 eggs. Average, 168 a month. Book of records can be seen any time at

P. H. ROWE,
"Wyralla," Dryden St., Campsie.

### LAYING ALL THROUGH THE MOULT.

"Wyralla" Dryden Street, Campsie.

Dear Sir,—

Just a line over again, thanking you for the way your Spice is doing good in my fowl yard. You published my letter in "Poultry," (4/4/25), also in the "Daily Telegraph on Anzac Day (25/4/25), and again in the "S.M.H." last Saturday, and I must thank you very much as I received several replies for the roosters which were in the foot note, and, of course, the first one to arrive was for all four of the birds, and I sent them along right away, and since then have sent three more to another place and now I have none left for sale. So if you publish my letter again, please omit the roosters. Since writing you in January, my monthly egg book has shown the following results:—

January, 173; February, 154; March, 54; April, 39; May (up to present date, 18th), 31.

So you see, all through the moult, I have been getting eggs.

Yours faithfully, (Sgd.) P. H. ROWE.

### MAKE THIS TEST.

Go to your local Grocer, Storekeeper, or Produce Dealer. Get a 1/- packet of Karswood Poultry Spice, give it to half-a-dozen of your birds in accordance with the directions on the packet. Do not expect immediate results. Karswood works naturally, not suddenly. It takes at least a fortnight or three weeks to produce results, but they are good and sure.

### NOTE THE ECONOMY.

1/- packet supplies 20 hens for 16 days.
2/- packet supplies 20 hens for 32 days.
13/- (7lb. tin) supplies 140 hens for 32 days.

### SUPPLIES.

"Karswood" Poultry Spice is obtainable from all Stores and Poultry Food Suppliers at the following standardised prices:—

| | |
|---|---|
| ½ lb. packet . . . . . | Price, 1/- |
| 1 lb packet . . . . . | Price, 2/- |
| 7 lb. tin . . . . . | Price, 13/- |
| 14 lb. tin . . . . . | Price, 25/- |
| 28 lb. tin . . . . . | Price, 48/- |

*If your local dealer cannot supply you, write direct to Messrs. Henry Berry Pty. Ltd., 380 Collins St., Melbourne, adding postage (6d. on half-pound packets and 9d. on one-pound packets)—to the above prices.*

# The Fruit Trade

*Market Reports and News Items.*

**REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS,**

**Advertising in this Journal.**

**NEW SOUTH WALES.**

**Sydney.**
Chilton, F., City Fruit Markets.
Greenberg, S. & M., Fruit Markets.
Louey Pang & Samuel Wong Ltd., Thomas St., Haymarket.
Rogers, F. H. G., Fruit Exchange.
Rule & Beavis, Fruit Exchange.

**VICTORIA.**

**Melbourne.**
Coastal Farmers' Co-op. Society, Western Market.
Cave, F., & Co., Melbourne.
Davis, J., Western Market.
Lister, G., Western Market.
Millis, A., & Sons, Western Markets.
Mumford, J. G., 449 Flinders Lane.
Pang & Co. Ltd., H. L., Little Bourke Street.
Silbert, Sharp & Davies, Western Markets.
Stott & Son, T., Western Markets.
Tim Young & Co., Western Market.
Vear, F. W., 49 William Street.
Wade & Co., H. M., 471 Flinders Lane.
Woolf, G., Western Market.

**QUEENSLAND.**

**Brisbane.**
Barr, A. S., Fruit Exchange.
Collard & Mackay, Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Finlayson & Son, Fruit Exchange.
Geeves, H. V., Fruit Exchange.
Robsons Ltd., Fruit Exchange.
W. J. Whitten & Co., Fruit Exchange.

**TASMANIA.**

**Hobart.**
Jones & Co. Ltd., H., Fruit Exporters.
Peacock & Co., W. D., Fruit Exporters, and at London.

**Launceston.**
Bender & Co., 110 Elizabeth St.

**NEW ZEALAND.**

**Auckland.**
Radley & Co. Ltd., Fruit Auctioneers.
Turner & Growers Ltd., City Markets.

**Dunedin.**
Co-operative Fruitgrowers' of Otago Ltd.
Paterson, Thos., & Co., Vogel Street.
Reilly's Central Produce Mart.

**ENGLAND.**

**London.**
Da Costa, Gerald, Floral Hall, Covent Garden.
Jacobs, E., & Sons, Covent Garden
Joel, R., & Sons, 16, 17, 20 Russell St., Covent Garden.
Margetson & Co. Ltd., Covent Garden.
Monro, Geo., Ltd., Covent Garden.
Poupart, T. J., Ltd., Covent Garden.
Ridley, Houlding & Co., Covent Garden.
Swann & Co., 3 Salter's Hall Court.

**Hull.**
White & Son Ltd.

**Liverpool.**
Adam, James, Son & Co., 1 Temple Court.

**Coventry.**
Boswell Bros. & Davis.

**Manchester.**
North of England Fruit Brokers Ltd. —Australian Agent, N. V. Wade, 8 Bridge St., Sydney, N.S.W.

**GERMANY.**

**Bremen.**
Fruchthandel, Gesellschaft, Reps. Renne, Harris Pty. Ltd., 434 Collins St., Melbourne.

**Hamburg.**
Astheimer, P. H., & Son., Fruchthof.
Lutten, J. H., & Co., Hamburg.
Stier, Aug., Fruchhof, Reps. J. B. Mills & Co., 9 Queen St., Melbourne.

## British, Australasian, and Foreign Market Reports.

London (11/9/25).

Messrs. T. J. Poupart Ltd., Covent Garden, London, report, 11/9/25:—

Grapes, 1/- to 5/-; Peaches are scarce, finest 12's realising 24/- to 30/-. Nectarines, also scarce, have obtained 6/- to 12/- per doz. In Apples, dessert varieties realised 2/6 to 4/- per half, but highly colored large fruit have sold at 6/- to 10/-, occasionally 12/- to 14/- per half, with Federation boxes realising 18/- to 20/-; Duchesse, 5/- to 10/-; Lady Sudeley, 3/-, 5/-; Ingestre, 3/-, 4/-; Culinary varieties realised 4/- to 5/- per bushel, but good packs of Grenadiers, Derbys, Bramleys, Stones, Lane's Prince Albert easily obtained 6/- per bushel. Moderate quantities of Pears have arrived, mainly consisting of Fertility, 10/-, 12/-; Dr. Jules, 11/-, 14/-; Clapp's Favorites, 11/-, 13/-; Williams, 10/-, 16/-; Louise Bonne, 9/-, 12/-; Pitmastons, 8/-, 10/-; Durondeau, 9/-, 10/6; and Conference, 14/-, 15/- per half.

* * *

Messrs. Gerald Da Costa, Covent Garden, London, report 19/9/25:—

South Australian Oranges: Navels, 150/252 in case, 20/-, 25/-; 96/112 in case, 18/-, 22/-.

* * *

### German Fruit Market.

Writing from Hamburg on the 29th August to their representatives in Hobart, Messrs. T. Boss-Walker Ltd., the Internationale Frucht-Import-Gesellschaft, comment upon the prospects for Australian and Tasmanian Apples in that market next season.

They recognise that, prior to the Great War, large quantities of Apples from this side of the world were disposed of at remunerative prices, the combined shipments from the mainland States and Tasmania in the year 1914 amounting to more than half a million cases. But they would have intending shippers remember that, since the war, the spending powers of the people, not only of Germany, but of the numerous other countries of Europe, for which Hamburg is the centre of distribution so far as Australian produce is concerned, has very greatly decreased, and that whilst it is now on the up grade, it is still far below what it was in 1914; and they are of the emphatic opinion that, according to present indications, four, or at the outside five, direct shipments of Australasian Apples, of not more than 30,000 cases each, arriving between the middle of April and the middle of June, would be as much as the German market could absorb at remunerative prices next season, and that the dates of despatch and the speed of the vessels carrying these shipments should be such as to ensure an interval of at least a fortnight between their dates of arrival in Hamburg; otherwise the market would inevitably be glutted and prices fall below a profitable figure.

The I.F.G. add that there is no demand whatsoever in Hamburg for low grade Apples, the only grades suited to that market being those known in the U.S.A., Canada and New Zealand as "Extra Fancy" and "Fancy," and in Australia as "Special" and "Standard," and the only suitable sorts of Apples, Cleopatras, Dunn's Favorites, (also called Munro's), Jonathans, Delicious, Spitzenbergs and Tasmanian Duke of Clarence. Such direct shipments as suggested above (comprising the total quantity sent from Australia, Tasmania and New Zealand) could be supplemented by moderate shipments sent via London, for transhipment to Hamburg, only in the event of the state of the market warranting it.

### New South Wales.

Sydney (27/10/25).

Apples.—Local: G.S., 10/- to 18/-. Vic.: M.F., 10/- to 14/-; Jon., 12/- to 15/-; F.C.P., 10/- to 13/-; P.B., 11/- to 14/-. Tas.: Dem., Croft., 10/- to 17/-; S.P.M., Jon., 10/- to 13/-; S.T.P., F.C., 10/- to 14/- per bushel. Bananas —15/- to 24/-; extra special, 25/- to 27/- per case. Strawberries—Queensland: 4/- to 7/- per tray. Local: 15/- to 18/- per dozen punnets. Lemons —Local: 3/- to 5/-. Mandarins—Local: 3/- to 8/-; choice, to 14/- per bushel. Oranges—Common local, 2/- to 7/-; Navel, 7/- to 9/-; choice, to 17/-; Paterson River, 8/- to 12/-. Pineapples—Smooth-leaf, choice, 9/- to 13/-; Ripley, 7/- to 10/- per double case. Passion-fruit—3/- to 8/-; extra choice to 20/- per half bushel. Pears—Vic.: W.C., 13/- to 15/-; W.N., 12/- to 14/-; Packham, 13/- to 16/-; K.H., 8/- to 10/-; Jos., 17/- to 19/- per double case. Tomatoes—Bowen, 10/- to 20/-; Brisbane, to 22/- per half bushel case.

### Victoria.

Melbourne (27/10/25).

The following were the ruling wholesale quotations at the Western Market:—Apples, Good to choice eat-

ing, 6/-, 10/-; good to choice cooking, 6/, 9/-. Bananas—Queensland, 12/-, 22/- double. Lemons—Victorian, 5/-, 6/-. Mandarins—N.S.W., 4/-, 10/-. Oranges—Murray districts in Victoria, 6/-, 10/-; Murray districts in South Australia, 8/-, 10/-; Goulburn Valley, other Victorian, 4/6, 8/6; Valencias, 9/-, 12/-; N.S.W., 6/-, 7/-. Navel Oranges—Murray districts, Victoria, 10/-, 16/-; Murray districts, South Australia, 10/-, 16/-; Goulburn Valley, 8/-, 12/. Pineapples—Queens, large 9/-; medium 10/-, 12/- double. Tomatoes, S.A., 26/-, 36/- half case.

* * *

The V.C.C.A. Market Representative reports as follows for the week ending October 24th:—

The temporary glut of Navels during last week-end has passed, the market being again normal, and prices are at their previous level. Most of the fruit coming in is showing signs of over-ripeness, accompanied by a fair percentage of waste. From advice received, the Navel season is practically over in most of our districts. A few lines of good Valencias came to hand, the top price received being 12/- per case. No improvement on this price can be expected until the Navels are off the market. Mandarins are just about finished, and Lemons are still a drug on the market. Sydney commons are just about finished, the main supply of commons coming from our South Australian and Victorian districts. Prices are:—Special Navels (counts 60's to 126's), 8/- to 14/-; common Oranges, 5/- to 10/-; Mandarins (few extra special large), 12/- to 15/-; (small to medium), 4/- to 8/-; Lemons (slow sale), 4/- to 7/-.

### South Australia.

**Adelaide** (24/10/25).

Apples, eating, 15/- to 17/- per case; cooking, 12/- to 14/-; Bananas (Fiji), 20/- to 26/-; Lemons, 6/-; Loquats, 8/-; Oranges, common, 7/-; blood, 8/-; Mandarins, 16/-; Navel, 12/-; Poorman, 6/-; Passion-fruit, 46/-; Pines, 6d.; Strawberries, 1/6.

### Western Australia.

**Perth** (22/10/25).

Apples, Cleos., 11/- to 15/3 per dump case; others, 8/- to 10/-; Dunn's, 13/- to 16/6; others, 12/-; Yates, 13/- to 16/-; others, 11/- to 12/6; Granny Smiths, 14/9 to 18/9; choice, to 23/6; Rome Beautys, 13/- to 15/6; others, 12/-; Dohertys, 11/- to 13/-; others, 10/-; Rokewoods, 11/- to 14/6; others, 8/6 to 11/-; Dem., 15/3; Statesman, 10/6 to 13/9; Navels, 15/- to 25/-; others, 7/- to 13/-; Valencias, 10/- to 13/-; others, 8/-; Oranges, 6/- to 9/-; others, 5/-; Mandarins, 8/- to 13/-; (choice to 15/3); others, 6/- to 8/-; Lemons, 5/- to 9/6; others, 4/- to 4/6.

### Queensland.

**Brisbane** (24/10/25).

Local Fruit.—Oranges, special, 11/- and 13/-; commons, 2/- to 10/-; small, 3/- to 7/-; Strawberries, best, 7/- to 8/- a dozen boxes; others, 2/6 to 5/-; Passion-fruit, 12/- to 17/-; Mangoes, best, 7/- to 8/- a bushel case; others, 3/- to 5/-; Papaws, 2/- to 4/-; Pineapples, rough leaf, 8/- to 12/- a case; 4/- to 7/- a dozen; smooth leaf, 4/- to 7/6 a case; 2/- to 4/- a dozen. Imported Fruit.—Apples, Jonathans, best, 10/- to 17/-; others, 10/- to 14/-; Sturmers, 11/- to 14/-; Dem., 13/- to 15/-; F. Cans, 10/- to 13/-; inferior, 6/- to 9/-; G.S., 16/-; small, 14/- to 15/-; R.B., 14/- to 17/-; E.C., 13/- to 15/-; F. Crabs, 13/- to 15/-; Rokes, 12/- to 15/-; Yates, best, 16/- to 20/-; others, 14/- to 15/-; Schroeders, 14/- to 15/-; Pears, W.N., small, 12/- to 14/-; others, 16/- to 19/-; W.C., 15/- to 17/-; choice, 18/-; Jos., 16/- to 20/-; M.C., 15/- to 18/-; B.P., 14/- to 16/-; small, 10/- to 13/-; G.M., 16/- to 19/-; Oranges, commons, 7/- to 11/-; Mandarins, small, 8/- to 11/-.

### Tasmania.

**Hobart** (24/10/25).

With the exception of cool store fruit, Apples are about finished, good coloured are selling well. Delicious, best, to 17/3; others, 15/3; small, 12/-; R.B., best, 15/9; Democrats, spotty, 4/5 to 6/7; S.T.P., spotty, fair, 5/- to 7/-; Pears, Glou Morceau, 19/- to 19/3 per case.

### New Zealand.

**Dunedin** (16/10/25).

Messrs. Reilly's Central Produce Mart Ltd. report:—Lemons: N.S.W., to 18/-; S. Australian, 20/-; Oranges: Adelaide Navels, choice, to 21/-; large sizes, 14/- to 17/-; N.S.W. Valencias, choice, to 16/-; Mandarins: Choice N.S.W., to 21/-; Bananas: Ripe, choice, 30/-; green, 22/-; Passions: Choice, 22/-; Pineapples: Choice, coloured, 22/-.


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**Three Furrow Disc and Three Furrow Mouldboard Tractor Plows, both Harvey's latest, and practically new.**

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PROPERTY ORCHARD, 19 acres, 11 acres bearing, 8 acres 4-year-old trees, 11 under cultivation, 34 grass, good dwelling, superior Apple house and hay shed; all other necessary outbuildings. **Terms**—1-3rd cash, balance over 10 years at 6½ per cent. Inspect now while orchard is in full bloom.
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**REILLY'S** anticipate an increased demand for all lines of choice Fruit arriving on this market between the months of September, 1925 and May, 1926.

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—— **REILLY'S GUARANTEE FAITHFUL SERVICE TO ALL CONSIGNORS.** ——

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PERFECT GRADING - - NO BRUISING

**A WISE BUYER makes sure that he buys the BEST**
**See the ELLIS before ordering elsewhere**

Hundreds of other Fruit Growers are now using it.
Write for their Testimonials

Mildura Co-operative have now installed their FOURTH, saying—
*"Your Machine is the best yet introduced to us."*

One great advantage of this Grader is that the fruit simply rolls on to your packing table and will keep eight packers busy. No second handling by carrying of fruit from grader to packing table.

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**Concentrated Tobacco Extract—**
is recognised by scientists and practical growers to be the best and most economical specific against APHIS and many other kinds of Fruit and Vegetation Pests

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Manufactured in Australia for Australian conditions by the makers of the well-known "Harbas" Red Spraying Oil, "Harola" Lime Sulphur, "National" Bordeaux Powder, etc. etc.

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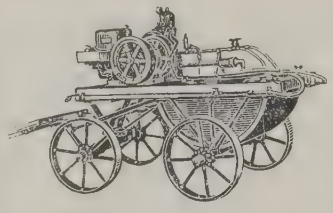
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"There are numerous ways in which the apparently irksome and humdrum life prevailing in rural centres can be more attractive," stated Mr. H. Putland, at the Younghusband branch of the South Australian Bureau of Agriculture.

"It was a deplorable fact," continued the lecturer, "that in many cases the attraction of city life had drawn numbers of young people away from their homes just when they had reached an age when they would have been of great assistance to their parents.

"If the boys, after they had completed their schooldays, were given a few sheep or cattle or a horse to do what they thought best with, or if they were allowed to cultivate a small portion of the orchard or farm and keep the returns, it would be educational, and an incentive for them to try to get the best returns.

"The girls should have the same privileges as the boys. They could become stockowners, and have a small garden plot of flowers or vegetables, doing the necessary work in any spare time they might have. They would then feel a certain amount of responsibility, which would have a tendency to build up a strong and reliable character.

"Work on a farm usually meant long hours, and surely it was not asking too much to give the young folk half a day a week for recreation.

"For boys, the best amusements were cricket, football, or tennis. Such games, whilst being a relaxation from the routine of everyday work helped to bring out manly qualities and make better men of them, and also make them more satisfied with country life.

"For the girls, tennis was a healthy and enjoyable recreation, and both sexes could participate in the game. If the young people could be made to take interest in their surroundings, and if they were given time for healthy amusements and games, he felt sure that the glare and glitter of city life would lose for them some of its allurements."

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(Continued from page 496.)

In the forest areas of Victoria, the Forest Department administers the State Act and issues licenses.

Sites for running a bee-farm may be obtained, areas up to 10 acres being a single Site, the farm being the centre, the bee range extending to within a one-mile radius.

The bee farmer rents the tops of the trees only; he has no right over the grass or the land.

Anyone desiring further information in respect to bee farm sites or other particulars should write to the Conservator of Forests, Melbourne, who will be pleased to furnish all necessary information.

---

Someone having thrown water over Archelaus, his friends tried to exasperate him against the man. "It was not I," said the king, "whom he threw water at, but the person he supposed I was."


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**McDougall & Robertson Ltd.,** of Manchester and Yalding, England, are the largest manufacturers of Fruit Tree Washes, Hop Washes and general Spraying Materials in the Old Country.

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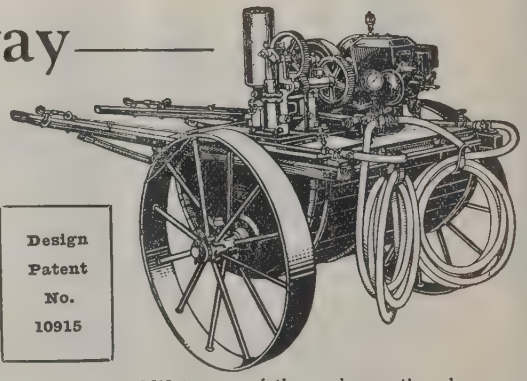
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# SYDNEY

## Australasia's Greatest Fruit Distributing Centre

*Several Million Bushels of Fruit are Annually Handled Here*

*An Interesting .. Story of a .. Big Commercial Enterprise.*

FOR FRUIT DISTRIBUTION, the leading centre in Australia is Sydney, the progressive capital city in the large and fertile State of New South Wales.

There are several factors which give Sydney this pride of place.

Sydney has a settled population of 1,000,000 people, all needing fruit for diet and health. In addition, there is the ever increasing "floating" population, attracted to Sydney because of its business and tourist facilities.

Then, as regards the "country" population, a very big trade in fruit has been worked up. The population of the State is over 2,300,000. The handling of the fruit for country districts is quite a specialised business.

New South Wales has an area of 309,460 square miles: into this area there could be tucked Great Britain, Ireland, Italy, Belgium, Turkey, Denmark, and Austria, with plenty of space still to spare.

* * * *

The climate of the State is such that fruit is not only a welcome portion of the diet of the people, but it is absolutely necessary for health reasons.

With the increasing knowledge amongst all classes of the community as to the nutritive food qualities of fruit as a diet, especially in relation to its vitamin contents, there will be an ever expanding trade, necessitating the keeping of an even balance between the production and consumption of fruit, allowing, of course, for the quantities exported.

Before describing the marketing facilities which have been developed to handle the vast trade in fruit it will be serviceable to place on record some details regarding this prosperous city —and the State of New South Wales, of which Sydney is the nerve centre.

### Some Interesting Facts.

New South Wales, with its 309,460 square miles, produces vast quantities of wool, wheat, meat, butter, fruit and other agricultural products, as well as coal and minerals in abundance. There are many splendid rivers, some of which are utilised for irrigation purposes, notably the Murrumbidgee River, where at the Burrinjuck Dam there is more water impounded than is contained in the Sydney Harbour.

Sydney is a most important commercial and manufacturing centre.

Owing to its geographical position, Sydney holds the premier position in regard to the commerce of the Pacific, having trade connections with every centre—the East, Pacific Coast of United States of America, and (through the Panama Canal) the Atlantic coast of U.S.A., New Zealand, and other parts of the world. Ocean-going liners trading with the Old World make Sydney their final Australian port before turning sixteen points to starboard, and commencing their homeward journey again.

The fame of Sydney Harbour is world-wide, and justly so; then there are all the wonders of the Blue Mountains and Jenolan Caves, within easy travelling distance. The South Coast line to Bulli Pass attracts its visitors; trips to Mount Kosciusko, the highest peak in Australia, are run from Sydney. There are numerous other features which, taken altogether, give Sydney the eminence and importance it deserves.

Several millions of bushels of fruit are annually dealt with through Sydney. This huge trade is handled in two main centres—the New South Wales Fruit Exchange, Bathurst-street, Sydney, and the Municipal Markets.

### The Fruit Exchange.

The New South Wales Fruit Exchange, most centrally situated at the foot of Bathurst-street, Sydney, and in close proximity to the Darling Harbor Railway Station, and also the inter-state and overseas wharves, has for the past 34 years been a recognised centre of the distributing agencies of the wholesale fruit trade of the State.

Prior to the establishment of the Fruit Exchange, the principal market in Sydney was situated right in the heart of the city, adjoining the Town Hall. That market was under the

Registered Address for Telegrams and Cables, "CHILTONS"

References:—Bank of N.S.W., Haymarket, Sydney, and Growers throughout Australia.

# F. CHILTON

ESTABLISHED 1894.

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Highest Market Prices. Prompt Returns. Reliable Advice.

## *City Fruit Markets, Sydney*

Telephone City **846.** Established 1900.

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FRUIT MERCHANTS & COMMISSION AGENTS

## 8 City Fruit Markets

**(Vegetable Section 272)**

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control of the Municipal Council, but as the site was becoming too valuable to continue in use as a market, and as the volume of business arising from the trade was causing a congestion of traffic at the spot, it was decided to demolish the old structure, but the controlling authority made no provision to carry on the distribution of the product of the rapidly-increasing fruit industry during the period of transition to a new site.

This meant that those engaged in this essential branch of the trade were forced to make provision for themselves, and for those who had entrusted their interests to them.

Subsequently a further area which practically doubled the original area) was purchased, and a fine set of stores, offices and extensive selling sections was erected, which enabled many leading men in the wholesale distributing trade to concentrate their activities here, and from whence they could cater for the interests of growers from all parts of the Commonwealth and also overseas, and place their products on the most favourable markets in the States.

The facilities for handling the trade are most convenient, as the building is approachable on all sides, being built upon an island block with ready



EXTERIOR VIEW FRUIT EXCHANGE, SYDNEY, N S.W.

A suitable building, formerly occupied as a large engineering establishment was secured, and the foundation of the Fruit Exchange business was laid.

A limited liability Company was formed to purchase the freehold of the property, and the intervening years have witnessed a constantly increasing volume of business in consonance with the growth of the industry.

access to the selling areas from four streets. The sales are conducted on the

**basis of private treaty,**

the wide knowledge and extensive experience of the old-established agencies which conduct their business at the Fruit Exchange, assuring to the producer the full value for the goods he places on the market.

Both large and small buyers are able to secure their requirements here, as fruit is sold in single

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case lots or by the thousand, according to the needs of the purchaser; as a "fair deal for all" is the axiom of the trade to be established here is regarded as synonymous with reliability and stability.

It is from this centre that markets in New Zealand and the South Sea Islands are largely supplied, and also where large centres of population throughout the interior of the State obtain their requirements, and the favourable situation of the markets enables this to be done with the utmost expedition and effectiveness.

Sydney two sites for market purposes. One of these is the site of the old Fruit Markets in Campbell, Pitt and Hay streets, on which now stands Wirths' Hippodrome, and which was, until the year 1892, used as an open market for the disposal of all classes of produce.

The other site is that in George-street, upon which now stands the Queen Victoria Buildings. Until the year 1890 the old George-street Markets on this site were used for the wholesale disposal of fruit, but in that year, owing to the dilapidated condition into which the buildings had become,



A typical market morning scene at the Municipal Markets, Sydney.

Good fruit, well graded and packed, and carefully handled, placed on this market will almost always return a satisfactory price to the grower, and there is no place throughout the Commonwealth where the interests of the primary producer received better attention or are more assiduously studied than at this extensive distributing centre.

**The Municipal Markets.**

The Municipal Markets have been constructed on modern lines. In August, 1846, when Sir Chas. Fitzroy was Governor of New South Wales, there was granted to the Municipal Council of

the Council resolved to build new markets, primarily to take the place of the old fruit markets.

The fruit business was then transferred to the first site referred to, adjoining which, and separated only by Pitt-street, was the Paddy's Markets, the site of which was dedicated to the Council by the Government in the year 1865, when the Right Hon. Sir John Young was Governor of the Colony, and on which now stands the Adelphi Theatre and the Hotel Sydney.

The fruit merchants, being dissatisfied with their compulsory ejection from the old George-street Markets, and the arrangements that were

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**Wholesale Fruit and Produce Merchants and Commission Agents**

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SEND YOUR FRUIT TO SYDNEY. (POPULATION OVER ONE MILLION.)

GREATEST FRUIT DISTRIBUTING CENTRE IN SOUTHERN HEMISPHERE.

**Points to be Remembered when sending to Sydney:—**

Our well-established New Zealand Trade ensures a quick sale and prompt disposal of all Choice Citrus Fruits, Pineapples, Passion-fruit, Cherries and Grapes.

A large connection of Country Clients ensures a constant demand for all choice well packed fruits, especially Apples, Pears, Pineapples and Bananas, and Choice Citrus Fruits.

A Branch at Brisbane, Queensland (controlled by Mr. J. H. Leavy) also provides an excellent market for Apples and Pears, also Choice Citrus Fruits, Cherries and Grapes.

We have the demand for Choice Fruits.
A good demand means Quick Sales, Good Prices, and Prompt Returns.
Write or Enquire as to Market Prospects by Telegram. We will Reply Promptly.

**Our Motto:—MUTUAL SATISFACTION and "NOTHING TO ARGUE ABOUT."**

proposed to be made for their accommodation in the new markets, formed themselves into

**a co-operative association,**

and transferred their business to what is now called the Fruit Exchange, situated at the foot of Bathurst-street, and since then (1890) have continued business there. On the completion of the Fruit Markets in Pitt, Hay and Campbell streets, however, many of the fruit agents returned to this new building, which was used for the wholesale disposal of fruit as well as vegetables up to 1910.

About 20 years ago the business of the Belmore Markets had increased to such an extent that the question of providing additional accommodation became so acute that the Council, as the result of nearly a year's advocacy, appointed a special committee to collect data and enquire into eligible sites for fruit and vegetable markets. This committee sat continuously for four months, and as a result of their deliberations, by a majority vote, subsequently confirmed by the Council by a practically unanimous vote, recommended a portion of the present markets area, which area has been subsequently enlarged, until it now comprises an area of approximately twelve acres.

The site, at the time of resumption occupied as a residential and factory area, cost to acquire a little over £200,000.

The portion of the site chosen for the new vegetable section was that fronting Hay-street. This building was opened on 19th November, 1909, costing a sum of £43,000. The surrounding streets were also considerably widened and new streets opened up to carry the increased traffic, consequent upon the presence of the market.

The second block of markets erected was what is called the No. 2 Produce Markets, and consists of a series of stores fronting Quay-street and Ultimo-road, with an open market space at the rear for the disposal of farm produce. These buildings cost £33,500, and were opened on the 18th July, 1910.

The third market was the Fish Market, fronting Thomas-street and Quay-street, and cost £14,000, and was opened for business on 17th July, 1907.

The Fruit Market covers an area of three acres, and cost £119,500. It provides accommodation equal to three times the old fruit market space.

The fifth and last market of the scheme consists of the Poultry Market, built on the site immediately opposite to the Fruit market, and fronting Ultimo-road. There are in existence no fewer than five distinct markets for the accommodation of every class of produce, and a terrace of residential market stores.

To summarise the municipal marketing facilities, the details are:—

| Market. | Cost. | Floor Space, Sq. feet. |
|---|---|---|
| (1) Vegetable . . . . . | £127,000 | 95,560 |
| (2) Produce . . . . . | 48,300 | 45,300 |
| (3) Fish . . . . . | 49,000 | 47,517 |
| (4) Fruit . . . . . | 119,500 | 143,000 |
| (5) Poultry . . . . . | 27,500 | 2,200 |

which, with cold storage, cost fully £500,000.

**City Fruit Markets.**

The site of the new Fruit Markets now occupies an area of 143,000 square feet. It is bounded by New Quay-street on the east, Hay-street on the north, Ultimo-street on the south, and the railway property on the west, and is in the shape of an irregular parallelogram.

The fruit market is the principal block of buildings in the municipal marketing system, and is surrounded by a series of stores to the number of 56, fronting both street and market areas.

This market has railway connections, which is designed to permit the fruit being conveyed direct into the market without unnecessary handlings. This facility, however, has not been availed of, owing to railway regulations. An appreciated provision at the Municipal Markets is cool storage.

'Phone: M 3438

**HARRY WEBSTER**

The Reliable Fruit Growers' Agent

CITY MUNICIPAL MARKETS, SYDNEY

Highest Market Prices
Prompt Returns
Reliable Services

**Shipping No, 202**

Bankers: Rural, Southern Branch, Haymarket

*Correspondence Invited*

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**Fruit, Vegetable and Commission Agent,**

14 CITY MARKETS, SYDNEY

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Has large central stores in the Fruit and Vegetable Markets and has employees with life experience in the trade.

Can handle all your Fruit and Produce and will guarantee you satisfaction.

ALL WE ASK IS A TRIAL

Bankers: Commercial Banking Co., Sydney.

**Telephone—City 6613.**

"Ask the Man who sends to us."

Phone City 3023

# REEDY AND LEE

Fruit Merchants and Commission Agents

City Markets, Quay Street, Sydney

We like to work for Growers who value our good judgment as much as we do theirs

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# The Producers' Distributing Society Ltd.

(Late Coastal Farmers' Co-operative Society Ltd.)

FRUIT & VEGETABLE SECTION—

Municipal Markets and Bathurst Street Fruit Exchange, SYDNEY

And at

Western Markets, Melbourne

With AGENCIES in GREAT BRITAIN, CANADA, NEW ZEALAND, and the EAST.

The PREMIER AGENCY in the TRADE.

Commission Agents and Exporters of Fresh Fruit

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Telegraphic and Cable Address: "FRUITFULLY," SYDNEY.

There is an elevated range of offices within the market area, allowing each stallholder to have complete surveillance of his space and goods without the necessity of obstructing the market floor with those requisites necessary for the managerial part of the business. Electric light is installed throughout for the market area, shops, offices, etc. The stores on the street frontages are each self-contained, and protected by cantilever awnings from the weather.

The stallage space is divided by one centre roadway, that part on the eastern side being allotted to agents, and that on the western side to growers. The agents pay a weekly rental of 12/- per stall (size, 6ft. by 11ft.) while the growers pay dues of 2/- per day, or 12/- per week. The Council is responsible for the proper conduct of the market as regards order, cleanliness, and fitness of fruit for consumption, but have no authority in respect of packing or grading, or the methods of sales.

Sales are conducted entirely on the system of private treaty. The practice of auctioneering fruit has never been in vogue in Sydney.

### Cold Storage Facilities.

At the City Council's refrigerating plant there are three floors of cold storage space—the ground floor for fruit chambers, the first floor for farm produce, and the second floor for mutton and rabbit freezing. For the two lower floors the air circulation system is used, which cools down to 30 deg. in three days. Direct expansion cooling is provided on the second floor. Complete elevating and conveying facilities have been provided for the rapid and economic handling of goods. The charges are 2½d. per case for the first week, and 1½d. per case for subsequent weeks.



Interior View at the City (Municipal) Markets: a busy "market morning" scene.

### Other Cool Stores.

It will be readily understood that in a large city like Sydney there are commercial cold storage companies which cater for the fruit trade. These stores are availed of as the necessity arises. Those operating in the fruit business state that on the whole the fruit is stored well, and that the various Sydney cold stores prove a distinct benefit to the country order trade.

Established 34 years. Telephone: City 1168.

## Apples, Pears, Cherries, Plums, Peaches, &c.

## FRUITGROWERS!

Send your consignments to an old established, experienced, and reliable Firm.

# STIMSON & FIRTH

## Growers' Agents

## FRUIT EXCHANGE, - SYDNEY

Every consignment receives our careful and personal attention.
No waiting for your money after fruit is sold.
REFERENCE: Bank of New South Wales, Bathurst Street, Sydney.
**Registered Shipping Number 38. Advice Notes, Envelopes and Stencils supplied.**
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## .. *Fruit Exchange, Sydney* ..

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WE offer you the **Best Service**, which is combined with our Continual Alertness in **watching your interests.**

**SHIPPING NO. 64.**

THREE decisive factors which should warrant your consideration in placing your produce in our hands are:—

**HIGHEST POSSIBLE PRICES. IMMEDIATE SETTLEMENTS.**
**CAREFUL HANDLING OF YOUR CONSIGNMENTS.**



Scene in the N.S.W. Fruit Exchange, Sydney.

Telephone City **779.** Cable Address "Pigs," Sydney

# C. G. PIGGOTT

Fruit Merchant AND Commission Agent

Importer and Exporter

## FRUIT EXCHANGE

**Bathurst Street, Sydney, New South Wales**

**Shipping No. 65.**

# E. COOKE

## Fruit and Vegetable COMMISSION AGENT

## Municipal Markets, Sydney

Telegraphic Address: "EFFICIENCY," SYDNEY. P.O. BOX 57—HAYMARKET.

TELEPHONES: City—3499.
Randwick—233.

*To Fruitgrowers . . .* (Established 1873.)

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Stencil and Advice Notes supplied on application.

## 18 City Fruit Markets, Sydney

Country and Shipping Orders Attended To. Shipping No. 70. NIGHT 'PHONE: U 6544. 'PHONE: CITY 4240.

# JOSHUA TERREY

**Fruit and Farmers' Agent ∴ Importer and Exporter**

23 CITY MARKETS, QUAY ST., SYDNEY, N.S.W.

ACCOUNT SALES RENDERED WEEKLY. Bankers: Bank of N.S.W., Haymarket Branch.

It will be readily understood, however, that cold storing the fruit in Sydney, after it has come in from a local centre or interstate, is an entirely different proposition from cold storing of the fruit at or near the orchard or producing centre.

It has been demonstrated that to get the best result from cold storing the fruit must be placed in the store as soon as possible after being picked. Thus, speaking of interstate fruit, particularly Apples and, to a lesser degree, Pears, the fruit is held in the cold stores in the orchard centres in which the fruit is grown, and is forwarded to Sydney for quick sale. Growers have now acquired the necessary experience enabling them to estimate the commercial storage life of the fruit so that it can be forwarded to Sydney practically without wastage, and still have sufficient storage life to enable the fruit to be cleared by the retailer and consumed by the public while still firm and fragrant.

An improvement which would be esteemed would be the employing of refrigerated railway cars for fruit carriage. It is interesting in this connection to recall a recommendation of the Minority Report of the last Commonwealth Royal Commission on the fruit industry, which recommended—

> "That perishable goods trains, interstate and intrastate, be provided and equipped with refrigerated or louvred cars, and that an early conversion of interstate trains to a uniform gauge be strongly urged."



Another Interior View of the City Markets. Photo taken at 7.45 a.m. Much activity is here displayed.

### Sydney's Varied Fruit Supply.

Sydney receives fresh fruit from all the Australian States as well as quantities from the Islands, America, Italy and elsewhere. The Australian trade, however, is by far the most important. Fruit is received from Sydney thus:—

From Tasmania (Apples, Pears, Berries, etc.).

*To the Fruitgrowers of Australasia.*

ESTABLISHED 1882.

# J. & G. ROUGHLEY

## Fruit Merchants

## Fruit Exchange, Bathurst Street, Sydney

**Block No. 55.**

HIGHEST MARKET PRICES. TRIAL CONSIGNMENT SOLICITED.

Consignments promptly acknowledged and followed on clearance, by Account Sales and Cheque.

Bankers: Bank of New South Wales, Bathurst Street, Sydney.

Telephones—City 7568.
Private: UM 6526.

ESTABLISHED 1884.

# W. H. SOUTHCOTT

## Commission Agent

## N.S.W. Fruit Exchange, Barkes St., Sydney

### And Municipal Vegetable Markets, Hay St., Sydney

**Shipping No. 100.**

William H. Southcott. Henry F. Southcott.

From Victoria (Apples, Pears, Peaches, Grapes, Passion-fruit).

From South Australia (Oranges, Grapes, etc.).

From Queensland (Bananas, Pineapples, Citrus, Grapes, Papaws, Custard Apples, and tropical fruits).

Supplies of Apples and Oranges are received from W. Australia when the market there warrants the forwarding of such fruit from this distant State, whilst within her own borders, New South Wales supplies the Sydney market with Apples, Pears, Peaches, Citrus, Grapes, Cherries, Passion-fruit—in fact, the whole range of fruits—cold climate Raspberries from the mountain districts, all the temperate fruits plus the sub-tropical Bananas from the Tweed area.

The principal supply of fruit from Queensland is by means of the fruit trains, which are despatched at regular intervals from the Queensland loading stations. By means of organised deliveries and the appointment of a representative of the growers in the Sydney markets, the supplies can be regulated.

Sydney agents refer appreciatively to the improvement in packing which is gradually but surely taking place as growers are becoming educated through the Agricultural Department instructors, and also by the erection of packing sheds in various parts of Australia.

Nevertheless, the fact must be frankly faced that there is still too much "rubbish" coming on the market. It is the presence of this poor quality fruit which causes trouble. Too much fruit reaches the Sydney market which would be better evaporated, made into cider or vinegar, or dealt with in some other way rather than that it should come forward to clog the markets.



Another View of One Section in the Fruit Exchange, Sydney.

It is very difficult to estimate the quantity of fruit which is handled in these markets, but it runs into several millions of bushels annually; Tasmania alone sends, according to its varying crop, between one and two million bushels annually to Sydney.

### The Country Order Trade.

This is a feature of the fruit distribution business which has been brought to a high state of perfection in N.S.W. Fruit is sent, north, south, east and west, and goes right to the boundaries of the State. There are traders in the Sydney markets who cater solely for this country order

City Phone—M **3280** or Kogarah—756, after 6 p.m.

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IF YOU ARE NOT SATISFIED
WITH YOUR PRESENT AGENT
TRY

## H. G. LOCKART

**Commission Agent**

**City Markets - SYDNEY**

Address All Communications to
Box 1548 G.P.O.

ESTABLISHED 1870.




Cable and
Telegraphic Address,
"Weymarkson," Sydney.

A.B.C. Code, 5th Edition.

# WEYMARK & SON Ltd.

**Fruit Merchants**

**OFFICE AND STORE:**

*14, 16, 18, STEAM MILL STREET, SYDNEY*

Our Premises are situated opposite the Main Entrance New South Wales Fruit Exchange. We have an extensive Country and Shipping Order Trade, which demands large supplies of Quality Fruit, and places us in the position to command the Highest Market Rates.

GROWERS OF GOOD FRUIT, WELL GRADED AND
PACKED, ARE ASSURED OF GOOD PRICES.

*Correspondence Invited.*

business. These firms buy from the commission agents in the markets, and will even buy consignments at the ship's side, where the brands are known and appreciated. Necessarily, all classes of fruit are purchased, so that the fruiterer in the country can get his whole supplies from any one of these firms thus operating. With an expert staff of repackers to cull out any damaged or inferior fruit, these traders can thus ensure the country customer receiving good quality fruit, which enables him to operate with confidence. These firms state that "the market is their orchard," by which they mean that they purchase their supplies as required from those who have the fruit to sell, and do not trade on commission.



**Obtaining Deliveries of Fruit at the Darling Harbor Railway Station, Sydney.**

(Two minutes from Fruit Exchange and four minutes from City Markets).

### Fruitgrowing in N.S.W.

There are over 88,000 acres under fruit in New South Wales, and the range of fruits, as stated previously, is complete. After the Great War, a big impetus was given to planting, and orchard lands were opened up for returned soldiers in the production of Grapes, Prunes, Apples, Peaches, etc. Banana growing on the Tweed was fairly extensive, but there has been a temporary setback on account of the Bunchy Top disease. There is a bigger area under Citrus fruit in New South Wales than in any other State. There have been considerable increases in the area under Apples, Pears, etc. All of this has an important bearing on the Sydney market, as the trade has been thereby largely increased. At the same time, the population in Sydney and in the State of N.S.W. generally is steadily increasing—in fact, the need is becoming increasingly apparent for enlarged marketing facilities.

### Unloading and Rough Handling.

Members of the wholesale fruit trade in Sydney are doing their best to minimise rough handling, and it is generally conceded that much good has resulted. It is by the closer co-operation between the producers and the wholesale handling that further improvements are possible.

During the recent strike, Sydney fruit agents and their employees unloaded ships. The carefulness with which this work was done should prove an object lesson to wharf laborers generally.

It is quite certain that of recent years there has been a steady improvement in the handling of fruit consignments. Nevertheless, there is still room for further improvement, and in this res-

pect, the growers, agents, and all interested in the trade are endeavouring to co-operate with the Railway Department and others in order to minimise the losses. The human factor is one that is ever present. Sydney agents are watchful in regard to the handling of fruit on railways, wharves, etc., and are ever alert to prevent damage, pilfering, also to make claims on the authorities concerned where the need arises, and generally to bring about increased efficiency in the handling and transport of this perishable product.



An Exterior View of the City Markets, from Quay Street, Sydney.

### Grading and Packing.

There is a noticeable increase in the quality of the fruit coming forward, and the manner in which the grading and packing is accomplished. Many careful growers have established their names on the Sydney market, and such brands are sold without inspection, and at a higher price over fruit not so favourably known. Thus, trade has been built up satisfactorily over a term of years.

The freight and expenses for handling are just the same on a case of poor quality, ill-graded fruit as on the high quality, well packed article, and growers would be wise to take these helpful suggestions to heart.

### Summary.

In conclusion, it is hoped that by thus setting forth the conditions, as they exist to-day in the Sydney markets, may lead to a better understanding of the working affairs, a fuller appreciation of the enterprise, and a closer and more sympathetic touch between the producers and the wholesale men who have the important work of selling their produce. Many improvements have been made over the past few years, and it is certain that further improvements are still possible. Better conditions will be brought about by a closer touch between all parties concerned.

When the Australian Conference of Fruitgrowers held its last meeting in Sydney, delegates were entertained by the Sydney Wholesale Fruit trade, or, as they prefer to term it, the "Fruit Distributing Industry." There was much good feeling displayed, and many helpful suggestions were thrown out for improving the business.

In America, it is the ideal of the fruitgrowers and their organisations to work in the closest harmony with the wholesale distributors, as well as with the retail men, and the general public.

Wholesale fruit merchants welcome the presence of growers at the Sydney markets, and it frequently happens than the grower, on seeing his own fruit offered for sale, in conjunction with fruit from other parts of Australia, has been able to offer helpful suggestions.

Improvements will be best brought about in a spirit of mutual understanding. Taking things by and large however, it will be admitted that in the handling of millions of cases of fruit annually, Sydney traders are not lacking in enterprise and business acumen, which qualities account in no small measure for the success thus obtained, and are an earnest of greater things in the future.


# FRUITGROWERS! Consign your FRUIT to SYDNEY

The Biggest and Most Profitable Market in Australia.

Every care and attention are given by experienced salesmen. Personal service guaranteed.





**Ocean Trade Routes concentrating at Sydney.**

**TABLE OF DISTANCES.**

| | Miles | | Miles | | Miles |
|---|---|---|---|---|---|
| Sydney to Melbourne | 576 | Sydney to Fremantle | 2,166 | Sydney to Auckland | 1,281 |
| „ „ Adelaide | 1,000 | „ „ Wellington | 1,239 | „ „ Honolulu | 4,476 |
| „ „ Hobart | 628 | „ „ Dunedin | 1,588 | „ „ San Francisco | 6,556 |
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Manufacturers of all Classes of Fruit Cases,

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Cables and Telegrams: "Broadpark" Sydney
Codes: Bentley's, A.B.C., 5th Edition

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General Manager

# B.P.B. & CO.

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Special Attention given to Export

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N.S.W., AUSTRALIA.

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TO THE FIRM OF

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An old-established and reliable firm, whose business has grown to large dimensions by recommendation from one grower to another, and who can be depended upon to do their best in the interests of the grower.

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**G. P. EMBELTON**

506 Little Collins St., Melbourne

Representative for

Victoria, South Australia and New South Wales

"CARLTON" Lead is Codlin's doom
Cleans the Orchard like a broom!

**EVERY POUND OF "CARLTON" ARSENATE OF LEAD will go further and kill more grubs than a pound of any other paste, simply because the "CARLTON" is stronger and better-made than all others**

1.—The "CARLTON," as you buy it, is guaranteed to contain 20% Arsenic Pentoxide (the poison). No other gives a guarantee anywhere near this.

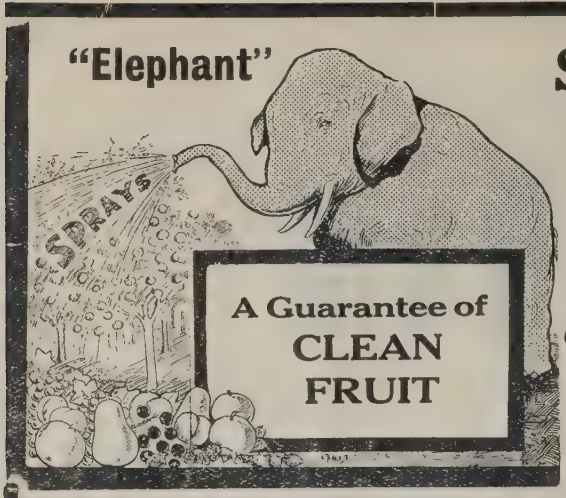
2.—You obtain 8 or 10 lbs. more solids in every 100 lbs. of the "CARLTON." It contains only about 37% of moisture.

3.—It has exceptional suspension qualities, enabling the poison to remain evenly distributed right through the spray.

4.—Owing to its extreme fineness it spreads and sticks without the use of a spreader.

Order "CARLTON" and make sure of a CLEAN Crop

F. R. MELLOR, 440 Elizabeth St., Melbourne




# STILL ON TOP!!

## ORCHARDISTS

should use only the best Fruit Sprays, therefore ask for and see that you

— GET —

## "Elephant" Brand

NOW IS THE TIME TO USE:—

# ARSENATE OF LEAD (PASTE & POWDER)

**IF NOT SUPPLIED, PLACE YOUR ORDER NOW.**

To obtain the best results it is necessary to spray thoroughly and frequently with Arsenate of Lead. This takes up considerable time, and is costly. It is therefore all the more necessary to use the Best Brand obtainable. To be sure of this, see that you use "ELEPHANT" BRAND, which has been proved to be not only the most reliable on the Australian market for many years, but the Highest Grade of Arsenate of Lead still obtainable.

Since the Wonderfully fine "ELEPHANT" BRAND ARSENATE OF LEAD came on the market years ago, numerous tests carried out by the various Government Agricultural Departments invariably show that this Brand stands alone. No other brand has shown consistently the very high qualities of "ELEPHANT" Brand. The figures published below speak for themselves,

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**Also buy "Elephant" Brand Spreader, Atomic Sulphur, Lime Sulphur, Bordeaux, Weed Killer, Prepared Red Oil, Sulphur, Black Leaf 40, Bluestone, Etc.**

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Representing the Deciduous, Citrus and Dried Fruits Industry of Australasia.

Published the First of each Month.

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**NEW SOUTH WALES—8 Bridge St., Sydney** (J. H. Coghill, Mgr.)

South Australia: W. F. McConnell, Grenfell Buildings, Grenfell Street, Adelaide. Tasmania: Saunders & Co., Murray Street, Hobart. Western Australia: D. L. Hetherington, Colonial Mutual Buildings, St. George's Terrace, Perth. Queensland: Gordon & Gotch Ltd., Queen Street, Brisbane. New Zealand: Gordon & Gotch Ltd., Wellington, Dunedin and Auckland. Great Britain: Harvey H. Mason, 1 Mitre Court, Fleet Street, London, E.C., England.

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## CANNING FRUIT GROWERS.

### A Bounty is Urgently Needed.

The Annual Conference of the Canning Fruitgrowers' Association of Victoria and New South Wales was recently held at Griffith, N.S.W. There were present—Messrs. W. Moses and V. Closehams (Griffith), Polkinghorne, Halson and Brady (Leeton), T. H. Rutledge and F. Laver (Yenda), F. J. Churches (Kyabram), S. Youlden (Merrigum), W. Young (Ardmona), P. G. Pullar (Tatura), G. Foster (Toolamba), and J. Rushton (Shepparton). Mr. E. J. Polkinghorne occupied the chair in the absence of Mr. W. J. Foster, President of the Association.

The Secretary, Mr. F. J. Churches, stated that the Canners' Association concurred in the growers' contention that £12 per ton was a fair price for export quality fruit, and £10 per ton for home consumption, but that the canners would not be agreeable to pay these prices unless the Government guaranteed a bounty to meet losses on export. The increased quantities of fruit coming forward made the erection of new canneries necessary.

It was stated that M.I.A. growers received only £9 per ton for Pullar's Cling Peaches last season, and that the N.S.W. Irrigation Commission and the Leeton Cannery seemed particularly anxious to make a good showing for the N.S.W. Auditor-General, even at the expense of growers generally.

It was decided to present a claim at once to the Tariff Board in support of a bounty.

It was decided to alter the Constitution of the Association, providing for an alteration in name to the Australian Fruit Growers' Association. The following office-bearers were elected:—President, Mr. V. C. Williams; Vice-President, Mr. W. Young; Executive (Goulburn Valley), Messrs. Churches and Pullar; (M.I.A.), Messrs. Rutledge and Polkinghorne; Secretary, Mr. Churches.

## AUSTRALIAN ORGANISATION LAUNCHED.

The Australian Canning Fruitgrowers' Association has been launched, the districts affiliated being Leeton, Yanco, Griffith, Yenda (N.S.W.), Shepparton, Ardmona, Tatura, Merrigum, Lancaster, Bamawm and Kyabram (Victoria). The Secretary is Mr. F. J. Churches, Kyabram, Vic. The objects of the Association are to organise the canning fruitgrowers of each area, and to negotiate with Governments and canning companies for sales and prices of growers' fruit, and to obtain necessary statistics.

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This is a movement on sound lines; it is intended to meet the requirements of all canning fruitgrowers of Australia, so that there shall be co-ordination of identical interest, and to provide a body to which the Governments may confidently look for information when desired. Growers of canning fruits throughout Australia are invited to join up.

## CANNED FRUIT INDUSTRY.

### Trade with New Zealand.

In a recent report by the Chamber of Commerce, Wellington, it was stated fruit canners in New Zealand could not compete with Australian imports, subsidised by the Australian Government. In 1923 55 per cent. of the canned fruits imported came from Australia, in 1924 91 per cent. The report recommends that no further concessions be granted for Australian canned fruit: the present tariff generally favored Australia, the balance of trade being greatly against New Zealand.

### "Eat More Canned Fruit."

The Australian Canners' Association has launched an advertising campaign designed to increase the consumption of canned fruit in Australia.

## IMPERIAL FRUIT SHOW.

### Citrus Prize Winners.

Mr. E. J. Eagle, of Barham, New South Wales, won first prize for Washington Navel Oranges at the Imperial Fruit Show held in England this year. The consignment was sent through Messrs. Dennys, Lascelles Ltd., of Melbourne and Geelong. The successes of citrus exporting clients of this firm are rather remarkable. In 1922 Mr. E. G. Wood, of Riverside, Kerang, secured the first prize; in 1923, Messrs. E. G. Wood and R. K. Roberts won 1st and 2nd prizes respectively, Mr. C. Simpson's fruit being highly commended. In 1924 the 1st and 3rd prizes were secured by Mr. E. G. Wood, the second prize being won by Mr. N. M. Brooke.

# New Zealand.

Interesting News and Comments.

(By Avro.)

## THE MONTH'S WORK.

**December 20th—January 20th.**

THE time for the picking of the main fruit crops is now rapidly approaching, and growers should make all preparations for this important work. It should now be possible to estimate the stone fruit crop, and order the cases which will be required, so that no delay will occur when harvesting time arrives. The time at which the fruit will be picked depends very largely of course on the particular market for which it is intended. If the market is close to the orchard it is best to allow the fruit to reach full maturity and ripeness before picking, and thus ensure perfect flavor, but if the fruit has to be shipped to a market, it will have to be picked earlier.

Under all circumstances

**a packing shed.**

of some sort should be provided, as the system of packing out in the orchard is completely out of date, and useless during wet and showery weather.

Already considerable quantities of **Strawberries** have been put on the market, and the general conditions appear to have been better than in previous years. The recently gazetted regulations are apparently being complied with by the majority of the growers, and this has tended to give a more uniform grade of fruit.

For the control of codlin moth and leaf roller, it will now be necessary to spray trees with arsenate of lead, while if powdery mildew is present amongst the Apples, atomic sulphur should be used.

Woolly aphis will now be working, and in districts where the aphelinus mali is not present, it will be necessary to spray with black leaf 40. This spray should be repeated about a fortnight later. Growers who have not actually used the aphelinus in their orchards but who know that it exists in their district, would do well to obtain some from their neighbors, as it has proved most effective in the control of the aphis.

The best time for the application of bordeaux to the Lemon trees is when the majority of the blossoms have dropped from the petals, and as this disease will be bad if the present humid conditions continue, a second application may be necessary later on. Cultivation should be carried out around the trees, a small scarifier being useful for this purpose.

**In The Garden.**

As soon as the plants are ready, the winter crops should be planted out, the greatest care being necessary. **Brussels Sprouts, Broccoli,** and **Savoy Cabbages** are all useful winter vegetables, and these should be planted in well prepared land. It will be necessary during dry periods to water Asparagus and Rhubarb beds.

Constant attention will have to be given to the **Tomato** crops which are being grown in the open, and where possible these should receive applications of superphosphate or liquid manure. The vines will need trimming and tying up, especially where the plants are close together.

Now that the majority of the small fruits have been gathered the beds should be thoroughly cleaned up, for it must not be forgotten that next year's crop will to a great extent depend on the growth made during the autumn. Wherever it may be necessary the plants should be sprayed.

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## PARTIAL EXPORT CONTROL.

**Proposals for 1926 Season.**

The question of control of the Apples exported from New Zealand offers one of the most interesting problems to orchardists at the present time, and the Fruit Control Board has now brought down concrete proposals which will hold good for the present season. Limited control only will be aimed at during the coming season, and the only thing which will affect the industry generally will be the levy made for the services the Board will render to exporters.

The chairman of the Board, Colonel Gray, is going to England to supervise the distribution of the fruit in the English markets, and the Board will take control of any shipments which may be voluntarily submitted to the chairman for sale.

Col. Gray has drawn up a plan whereby growers in different districts will be grouped, and each group will be divided up so as to send away about 10,000 cases for the season. The chairman when in London, will arrange for agents in the various inland towns to take over the different consignments in London, and by this means it is hoped to get a wider distribution of New Zealand fruit than ever before. Pooling is not proposed under the scheme, but should any group of growers wish to pool their Apples, they would be at liberty to do so, and the Board would assist and make out group accounts.

The advantages claimed by the method proposed, is that under the 10,000 case group system, parcels will be restricted to from 500 to 1,000 cases per steamer, these consignments being particularly suitable for sending to inland towns. The grouping of growers in the same area will make for uniformity in the class of Apples, and buyers will be able to get the class of pack they desire right throughout the season.

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## CODLIN MOTH CONTROL.

**Stringent Measures Proposed**

It has long been recognised that codlin moth control in New Zealand is not as stringent as it might be, and this year the officers of the Agricultural Department from one end of the Dominion to the other have received instructions that the regulations are to be more strictly enforced. The aim of the Department is to get the pest so completely under control within the next two years, that it will present few problems to the growers.

In this country codlin moth is very bad in certain seasons, and last year many districts suffered from its ravages. It can however, be successfully controlled provided the growers are prepared to go to the necessary trouble, and it is a significant fact that in one fruitgrowing district last season, the cleanest orchard in the district was right alongside the dirtiest. This conclusively demonstrates the effectiveness of control.

There is no doubt that the presence of infected fruit is evidence of a neglected orchard, the degree of neglect varying according to the state of infection. Provided that the first arsenate spray is used in time to catch the first brood in the spring, complete control can be secured by repeated applications.

In this country the moth spreads very quickly, and success can be secured only by acting early in the season. The condition of the blossom provides an accurate guide to the time when spraying should first be commenced. The first application should be applied when the petals have fallen from the majority of the blossoms on the tree and sufficient force should be used to drive a quan-

tity of the spray into the calyx cavity. If this spray is delayed the calyx lobes close over the eye of the young fruit, and provide the egg or grub with a weather and spray proof shelter. The swelling fruit rapidly outgrows the coating of spray and subsequent applications have to be made at periods of not more than three weeks, until about the end of February.

There is every reason to believe that the majority of the commercial growers will loyally support the Department in its endeavor to cope with the problem of codlin moth, for it is the private orchards, to a very great extent which are responsible for its reappearance.

There are certain country districts still, in which codlin moth is absolutely unknown, one of these being the northern part of the East Coast of Poverty Bay, and it is to be hoped that carelessness will never allow the moth to be introduced to these places, and that the eradicatory measures proposed will be successful.

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## AROUND THE DOMINION.

### Notes from Here and There.

So successful was the cool store fruit competition held this year by the Poverty Bay Horticultural Society, that there is every likelihood of its being adopted in several of the large centres next year. The principle is that the fruit is collected and placed in the cool stores where it remains for five months. It is then taken out, displayed and judged. Next year a special competition for Pears which have been in cool store will be held in addition to the Apple competition.

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Tauranga is generally recognised as the best citrus growing district in New Zealand, but the Lemons produced there are not as good as those of Poverty Bay, although growers in the latter district take less care with their trees, and do not manure their land in the same way as the Tauranga growers. It is the climate of Tauranga rather than the soil, that is preeminently suited to citrus culture, and there is no doubt that eventually it will be the leading citrus growing district of the Dominion, with North Auckland a good second.

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Mr. John Lennie, who for many years was a partner in a nursery business in Invercargill, is now acting as a fruit inspector at Invercargill. Prior to his appointment no inspector was in the district, but the growth of fruitgrowing in the district, and the fact that a great deal of imported fruit is landed at the Bluff has necessitated the appointment.

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A very noticeable feature of the fruit markets in the big towns during October and November was the fact that much of the fruit had to be sold for very poor prices, this being due to the carelessness of growers in placing much unsuitable fruit into the cool stores. During the whole of the season good Apples were bringing fair prices, but the rubbish had almost to be given away, and growers who owned the poor quality Apples must have lost heavily.

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The stationary method of spraying of fruit trees, extensively used in parts of Australia, is now gradually spreading in New Zealand and in Hawke's Bay several growers have installed this system in their orchards. The results during the coming season will be awaited with interest, and if they are successful other growers will probably adopt the idea next season.

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A further effort to popularise New Zealand grown Grapefruit, has recently been made in the Dominion, and gradually the market for this article is improving. A useful publicity campaign was run during the Auckland Winter Show, and at a small cafe thousands of people had their first taste of the luscious fruit. Unfortunately the first shipment of this fruit made to England did not arrive in good condition and growers lost heavily.

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The railway tariff throughout New Zealand was recently revised by the Government in order to cope with motor competition in various districts. Unfortunately the new tariff is going to come very hard on fruitgrowers who send their fruit long distances by rail to local markets, for the freights for long distances are enormously increased. Efforts are now being made to have the new tariff amended, and there is every prospect of these attempts proving successful, as the Government must realise the unfairness of the charges.

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Another fruit area has now been constituted in New Zealand, this being Poverty Bay, where fruitgrowing has been steadily increasing for some years past. A considerable section of the district in which are situated the majority of the orchards, has been set aside as a fruit area, and this will give the Horticultural Department better control in the matter of pests. The regulations of the Orchards Act will be more strictly enforced and private growers will be forced to look after their orchards properly.

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Citrus fruitgrowing is making rapid strides in the Tauranga district, and this now bids fair to become the leading citrus producing centre of the Dominion. At the annual meeting of the Tauranga Citrus Growers' Association recently it was reported that in three years the district would have an area of 120 acres in citrus fruits, and would be producing 36,000 cases of Lemons each year. Growers from that district have arranged for a very comprehensive display of their produce at the Dunedin Exhibition.

Although there are many growers in the Nelson district who are dissatisfied with the returns this season, a Moutere Hills grower recently informed a pressman that he was well pleased with the export market, and that he had netted £100 per acre from an eight acre orchard.

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Colonel Gray, chairman of the Fruit Export Control Board, Mr. H. E. Napier, secretary of the Fruitgrowers' Federation, and Mr. Campbell, Director of the Horticultural Division recently visited Auckland and delivered addresses to intending exporters on various aspects of the export trade. In a number of different parts of the district these capable officers met the growers and told of the difficulties which would at first be experienced. Colonel Gray is of course, going to England shortly to attend to the distribution and marketing of the New Zealand fruit.

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The N.Z. Fruitgrowers' Federation has received advice regarding the final shipments of Apples made to the South American market, this showing that satisfactory prices were received. The prices to the growers in New Zealand, less freight and commission were:—Delicious, 17/-; Jonathans, 13/6; Dunn's, 12/6; Premier, 12/9; Hoovers, 10/9.

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In pursuance of its policy of holding field days at various orchards throughout the district, the Hawke's Bay Fruitgrowers' Association recently held one of these popular fixtures at Havelock North, Colonel Gray giving an address on problems connected with the export trade. At the conclusion of the address it was decided that all growers should be circularised to standardise their fruit and thus prevent similar trouble arising to that which was experienced last season.

There is a growing feeling in many of the Dominion's fruitgrowing districts that some form of local control is necessary in order to maintain the standard of the fruit received on the local market. Under the existing conditions much unsuitable fruit finds its way to the retailers and thus prevents the sale of the better class article. In Hawke's Bay growers are favoring some measure of control in the nature of the standardisation of the grades of fruit which is to be placed on the local market, and it is likely that proposals of this nature will be brought down at some time in the near future.

## AUTUMN GARDEN WEEK.

### Melbourne, April 12 to 17, 1926.

Autumn Garden Week will be held at Wirth's Olympia, Melbourne, from April 12th to 17th, 1926.

This affords a unique opportunity for fruitgrowers to emphasize the value of their industry to the dwellers in the metropolis. Full particulars are obtainable from the Secretary, Mr. R. E. Boardman, A.F.I.A., 9 Queen-street, Melbourne, Vic.



Shield presented by Victorian Exporters Handling Committee for State School winning the fruit packing competition. Won in 1925 by Pakenham Upper.

## HELD OVER.

Owing to pressure on space, we have had to regretfully hold over articles as follows:—Constructing a Packing Shed (illustrated, by B. Krone, Department of Agriculture, Vic.), Almond Culture, New Varieties of Fruits.

## Acknowledgments.

The Editor acknowledges having received reports and balance-sheets of the Shepparton Orchard Products Co. Ltd.; the Griffith Co-operative Society Ltd.; the Woorinen Fruitgrowers' Co-op. Co.

# Victoria.

### Government Cool Store.

### Huge Losses.

That the Government Cool Stores at Victoria Dock are showing a big loss is revealed in a report to Parliament by the Public Accounts Committee. With war contracts for storing meat, profits were carried totalling £87,904. Since 1919-20 the losses aggregated £117,714. The capital invested is £321,615.

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## VICTORIAN FRUITGROWERS.

At the quarterly council meeting of the Victorian Fruitgrowers' Central Association, held on Nov. 18th, Mr. Geo. Mock presiding, delegates stood in silence as a tribute to the honored memory of the late Mr. H. H. Hatfield.

It was decided to hold the next conference at Portland; to form a Keiffer Pear pool if possible; to support the barrow distribution scheme; to ask the Agricultural Department to investigate the life history of the codlin and light brown Apple moths.

After a long discussion regarding the functions of the Central Association, it was decided that the Executive consider the whole position at its December meeting.

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### Seasonable Orchard Notes.

As a preventive against codlin moth, Apple and Pear trees should be sprayed with arsenate of lead whenever there is danger from the prevalence of the moth. One of the secrets of success in codlin moth spraying is the destruction of as many as possible of the insects of the first brood, states Mr. E. E. Pescott in the Journal of Agriculture. Thus, if particular care is given to the early sprayings, keeping the fruit covered with spray for a month or six weeks after setting, this result is easily accomplished. Some growers prefer to gather all fruit infected by the first brood, spraying only for the second and later broods. Even if all the fruits attacked are gathered, which very rarely happens, the grower suffers from the loss of fruit, which he can ill afford, unless his crop be a heavy one.

Another feature for consideration is the fact that the presence of any arsenical spray on the foliage is responsible for the destruction of the Pear and Cherry slug, root-borer

beetle, and all forms of leaf-eating insects.

Spraying the Cherries for the slug will now be necessary. Arsenate of lead may be used, provided the fruit is not far advanced. Hellebore, and also tobacco water, are effective against this pest.

**Keep the Soil Cultivated.**

All orchard soils should be kept well worked during the summer months. It is very essential that the trees should have an abundant supply of moisture during the whole of the growing season. This will mean an increased supply of fruit buds for the next season, consequently the frequent summer cultivation of the soil will be a necessity if the health and vigour of the trees are to be maintained.

Excessive transpiration is often the cause of loss of young trees and of new grafts. They are found to part with a large amount of moisture, and are not able to obtain or retain sufficient for their nourishment; they then very soon wither and die. The soil around these should always be kept well stirred; they may also be given a good straw or grass mulching, and an occasional overhead sprinkling will greatly benefit them.

The planting out of citrus trees may be continued, sheltering the tender plants from winds with hessian or breaks of scrub.

The general aims in summer cultivation should be to maintain a good loose earth mulch during the whole season, and to keep down all weeds and useless orchard growths.

**Summer Pruning.**

Summer pruning may now be commenced, particularly on Apple, Pear, and Plum trees. The removal or reduction of surplus leader growths, the shortening of unduly long laterals, and the thinning out of crowded shoots, will all tend to strengthen other parts of the tree and to increase the development of new fruit buds.

## CROP PROSPECTS.

**Ardmona.**

From Ardmona, Mr. V. R. McNab reports on the 18th November that their principal fruits are Apricots, Peaches and Pears (both dessert and canning varieties), also Prunes and Table Grapes.

They expect a light crop of Apricots, and early and mid-season Peaches, while Pullar's Cling are medium, not heavy. The Pears will be medium, and Prunes very light. The crop is expected to be about 10 per cent. lighter than last season.

As regards acreage, there are about 2,700 acres under fruit locally; last season 11,100 tons of fresh fruit were despatched from Mooroopna station.

The Ardmona Fruit Products Co-op. Company is building a cannery alongside the Mooroopna Railway Station, which promises to be the most up-to-date plant in Australia; the cannery and store room are now complete. The offices, luncheon rooms, etc., have yet to be built. The factory will be ready to receive fruit by the middle of December, and will give employment to 200 girls and 100 men.

**Bairnsdale.**

Mr. G. W. Peart, Bairnsdale, writes under date, Nov. 21:—

Apples, Peaches, Pears and Plums constitute the principal fruits grown in this district.

Crops are medium to heavy—the late flowering Apples seem to be the only light crops.

It is expected that more fruit will be harvested here this season, last season falling a bit below expectations.

Delicious, Jonathan, Rome Beauty, Statesman, Rokewood, London Pippin, Tasma and Yates are the most largely planted Apples.

The chief Pears grown are Bartlett, Bosc, Winter Cole, Winter Nelis, Packham's Triumph and Josephine.

Goodman's Choice is by far the leading Peach in this district, and of course goes into the cannery, where it is "processed" into the finest grade of yellow cling Peaches.

During the last four days over two inches of rain have fallen, and thereby wholly removed the fear of dry season conditions, which did seem to have set in.

Owing to severe winter weather, the early Pea crops matured three weeks later than usual. Crops were not as prolific as usual, although it was a common occurrence for 25 tons of green Peas to leave here for the Melbourne markets five days per week while Pea picking was in full swing.

Bean and Maize crops are a bit late, but will soon jump ahead with such a wonderful rain and warm weather helping together.

Tobacco growing is a new industry hereabouts, and seems eminently suited to the light soils of the district.

**Doncaster.**

Mr. A. F. Thiele reports under date, Nov. 18th, the principal fruits grown here are Peaches, Pears, Lemons, (few Apples).

Crop Prospects.—Peaches (heavy), Pears (medium to heavy), Lemons (heavy), Apples (fair). The crop should be about the same as last year in Pears; Peaches heavier, Lemons heavier.

## DANDENONG RANGES.

**Berry Crops Medium to Good, Passions Light.**

Mr. R. A. Routley, General Secretary United Berry Growers' Association, Wandin Yallock, reports (18/11/25).—

The berry crop of last season, having been a heavy one, that of the coming season would in the ordinary way, be rather lighter. Exceptionally dry weather over a period of about six weeks has had the effect of intensifying the difference.

With Strawberries large new plantings would have made this year's production exceed that of the past few seasons, but many of these young plantations have suffered heavily, even to the point of almost complete failure. Second and third year patches have held out well, but had almost reached the limit of their endurance when a useful fall of rain set in on the 17th of the month. Production is likely to be about the average of the past few years, therefore.

The Raspberry, Loganberry and Blackberry crops are patchy. Some growers are able to claim that they are scarcely able to find a defective berry, while others report considerable damage—the damage being attributed to thrips.

During the last week of October unusually severe north winds were followed, in the course of a few days, by the appearance of myriads of these insects. Simultaneously, growers began to report damaged blossoms, and a few resorted to spraying.

Many experienced growers are expressing doubt as to whether thrips do the harm ascribed to them—at least, as far as berry fruits are concerned. They point out, and rightly so, that these insects are to be found every season, and often in alarming numbers, without any appreciable harm occurring to the crop. These growers suggest that the warm north winds that waken the insects into activity are also the cause of the damage done to the blossoms.

There were several hot north winds during October, and on the morning of at least one of them, and probably of two, there was a frost. This combination of extremes is, for many growers, the reason for the partial failure of some crops. The same views are held in regard to the failure of some of the stone fruit crops of the

district, where, after a heavy setting, the young fruits withered and died.

Summing up the berry position, now that steady rain is falling, with promise of continuance, there should be a **medium to good season.**

The other important fruit of this district—the **Passion-fruit**—will be extremely light. The third of a succession of heavy frosts during July cut whole plantations to the ground, even in positions considered well above the frost line. In many cases, the plants are sending out new growth from the butts, though in others new plantings have been necessitated.

Considerable plantings of **Tomatoes** are again being made, though the prolonged dry weather has caused some growers to hold back. Those who went on with their planting out have been put to the necessity of watering the young seedlings several times, and, in some cases, of making replacements. The warmth of the ground is sufficient to give the plants, when once established, a much better start than they have enjoyed for the past three seasons, and the crop, which is growing in importance in this district, is likely to be a good one.

### Geelong.

#### Crops Lighter than Last Season.

Mr. E. Weitnauer, of Batesford, near Geelong, reports as follows (23/11/25).—

The principal fruits are Apricots—Moorpark and Oullin's Early. Apples—Jonathan, Delicious, Rome Beauty, Dunn's, Reinette, King David, Granny Smith, Gravenstein, Pomme de Neige, Stewart's Seedling. Plums—Early Orleans, Angelina, Diamonds, Jefferson, Green Gage, President, Golden Drop, Egg Plum, Grand Duke. Pears—Williams, Vicar of Winkfield, B. Bosc, Black Achan, Packham's. Cherries—Early Rivers, Warder's Early, Florence, Marguerite, Bigarreau, Tartarians. Peaches—Hale's Early, High's Early Canada, Crawford's, Elberta, and a fair lot now of Goodman's Choice.

Apricots are light this season, isolated gardens on light soil being medium. Apples are medium, Jonathans are the best. Plums, medium to heavy. Pears, very light. Cherries, medium, but small; early Cherries are unsaleable, but the later ones are looking better. Peaches, light to medium. Quinces in most districts are medium. On the whole, the crops will be much lighter than last year.

Again we have to report the appearance of the Cherry Aphis, despite the different sprays used, and with the unusually dry weather most of the early Cherries are hardly worth picking. We recently had about 2¾ inches good rain, which will benefit the later ones, and already there is a marked change.

Growers have done more early spraying than usual, the weather being more suitable than at this time in other years. Nearly every grower has finished his second Codlin spraying. Black Spot does not seem so prevalent—some growers tell me they have not seen a sign of it yet. Woolly Aphis is showing up again, and growers are having trouble in this respect. It has been noticed by several growers (including myself) that Ladybirds are very numerous on Apple trees this season.

Growers are paying a good deal more attention to **manuring** than previously, superphosphate being generally used.

**Cultivation** has had its fair share, and orchards are looking clean, there being no growth of weeds until now. A pleasing feature is the fine sample of Apricots; the fruit at this stage is clean and large, owing to the small crops, and growers are looking forward to good prices after the disastrous state of affairs last year.

There is rather an inclination to root out than to plant, in this district, owing to the labour conditions, pests, and often unremunerative prices.

**Exporting** is not taken up enthusiastically, but those who ventured to do so found it very profitable and intend to continue. Most growers send their fruit to cool store, and find it profitable; particularly this season Apples have had good prices for many months; there are still some growers who have Apples in the stores keeping exceedingly well (such as Delicious, Romes, King David and Sturmers).

**Asparagus** plots are extending each year, and becoming more plentiful; this season they look very fine indeed.

Speaking of general matters from the "Fruit World," such as Orchard Tax and Kerb Markets: I find that the more progressive orchardist is not against a tax being levied, provided it is used solely for the purpose of improving the industry, while Kerb Markets are very much favoured, and growers are watching eagerly for the results of this season.

### Harcourt.

Mr. E. Pritchard, of Harcourt, writes (19/11/25):—

Our principal fruits are Apples, Pears, Plums, Cherries, the latter in smaller quantities than last year. The crop anticipations are medium. On the whole we expect that the crops will be lighter than last season.

The acreage under fruit hereabouts is about 2,000; last season about 300,000 cases were produced.

### Mount Waverley.

Mr. L. Pepperell writes on Nov. 20th that the main fruits from Mt. Waverley are:—Apples—Jonathans, Rome, F. Crowns, Yates, Gravenstein, Statesman, Stewart's. Pears—Williams, Bosc, Packhams. The Apple crop is patchy, Pears set heavily, but thinned out considerably. Plums will be very light.

On the whole there will be a lighter crop than last season.

Notwithstanding the dry season, the trees are looking very well, the foliage is splendid, and with the present good rainfalls best quality fruit should be assured.

### Narre Warren.

Report from Mr. R. E. Haysey, Narre Warren North, dated 18th Nov., reads as under:—

The principal fruits grown here are Apples and Pears. Apples—Jonathan, medium to heavy in patches; Yates, medium, old trees; young, light; Romes, very light generally (one or two good crops); Crowns, very light. Pears—Williams, Bosc, Keiffer, light to medium.

The general fruit crop is medium and lighter than last year. Pears did not set well, while early blooming Apples did; late blooming ones set poorly, owing to thrips; the whole district is very free from spot so far.

The acreage is about 750, of which 150 is non-bearing.

A very fine rain set in last night, and is still continuing; it has come at the right time, and is very welcome, as it should save any dropping of the crop. Cultivation and spraying are all well in hand, and trees are looking well.

**Cool Store.**—The local cool store stocks are being gradually cleared. Small Yates are very hard to sell, so growers will have to thin still more, as it will mean more remunerative prices for larger sizes.

### Pakenham.

#### Apple Crop Medium.

Mr. J. F. Moody, Toomuc Valley Orchards, Pakenham, reports on Nov. 17th:—

The principal fruits grown in this district are Apples—Jonathan, Yates, Statesman, Rokewoods, Delicious, Edna May, Londons, King Davids, Stone Pippin, Reinettes, and small lots of other varieties.

Only a few orchards have full crops,

and we expect the yield will be light to medium; generally speaking, the crop appears to be lighter than last season, but the absence of spot should give the same quantity as last season.

As regards acreage, we are not able to state definitely, but believe the acreage in bearing, loading at Pakenham, is between 1,000 and 1,200 acres.

### Portland.

Crop anticipations are—Jonathans, medium; Cleos., Romes and others, light. The crop will be very much lighter than last year, but the fruit is clean. Last season about 50,000 cases were harvested locally.

### Quantong.

Mr. C. H. Jost, of Quantong, reports on 25th November, that their principal fruits are Apples—Cleos., Jonathans, Romes, and Rokewoods. Pears—Williams, Vicars, Josephine, Bosc. Apricots—Oullins, Moorpark, and St. Ambrose. Plums—Most varieties. Grapes — Gordo. Quinces. Peaches—Usual kinds; not many Pullar's cling, or other canners.

All crops are very light, equal to one-third of last season's yield.

Last year Quantong sent away 70,000 cases of fruit. The area under fruit this year is 350 acres, bearing and about 400 young coming in.

### Red Hill.

Mr. J. E. Holland, of Red Hill, reports (18/11/25) as follows:—

Our principal fruits are Apples—Jonathans, Rome Beauties, Yates, London Pippin, Stewart's Seedling, Rokewood. Pears—Keiffer's, Harrington, Williams' Bon Chretien, Beurre Bosc, Winter Nelis, Napoleon. Cherries—Bedford, Marguerite, Florence. Strawberries—Sunbeam, Up-to-date, Marguerite. Plums—Burbank, Satsuma. Tomatoes—Burbank.

The general crop anticipations are light to medium, and it is expected that the crops will be lighter than last season.

About 1,600 acres are under fruit in this locality, of which about 1,000 acres are young trees. In the season 1925, approximately 80,000 cases were harvested, of which 25,000 were stored, 25,000 exported to United Kingdom and interstate, and 30,000 sold in local trade.

This year an increased acreage has been planted of Tomatoes, Cabbages, Cauliflowers, Peas, Beans, Potatoes.

### Shepparton.

Mr. J. A. Rushton writes under date, 18th November:—

Our principal fruits are **Peaches**—High's Early, Hales, Elbertas, Orange Cling, Goodman's Choice, Pullars (medium to heavy). **Apricots**—Oullin's, Moorpark, Mansfield, Hemskirk, Tilton, Alsace (medium). **Pears**—Williams, Packham's (light). **Plums and Prunes**—(Light).

Peaches are heavier than last year, while Pears and Plums are lighter, but Apricots remain about the same.

The quantity of fruit consigned from Shepparton railway station annually is 224,000 cases, and the quantity of fruit treated at Shepparton annually is 5,000 tons.

Shepparton fruitgrowers have agreed to pay a levy of 1/- per ton on fruit treated at the local cannery, and ½d. per case on fruit sent to the market.

* * *

**Shepparton.**—Mr. E. J. Rule, President, at a recent meeting of the Irrigators' Association, said that organisation of the growers was urgently needed. Last season over 1,000,000 cases were sent over the railways from the Goulburn Valley, in addition to about 80,000 tons to local factories —returning about £300,000 to the growers.

Mr. A. W. Fairley, chairman of directors, Shepparton cannery, said that all varieties of Apricots and Cling Peaches would be accepted, excepting Elbertas, which the trade condemned.

### Silvan.

#### Medium Crop Expected.

From Silvan, Mr. W. C. E. Jones, Hon. Sec. Silvan Orchardists' Association, reports under date, November 19th, that their principal fruits are:—**Strawberries**—Melba, Sunbeam, Rhodes Special. **Raspberries**—Red Antwerp, Filbasket, Great American. **Loganberries**—Red Logan. **Blackberries**—Lawtonberry. **Gooseberries** —Roaring Lion. **Currants**—Red Currant (few) Black Currants. Berry planting is increasing in this district, and proving very profitable.

Owing to the effects of drought and thrip, the berry crop this season will be medium. Cherries—Bedfords and St. Margaret, will also be medium. Regarding Plums—Jefferson, Japanese, Diamond, Grand Duke, Orleans, the crop will probably be light.

With Passion-fruit, growers have had a severe knock back this spring, owing to wet, frosty weather. Established plants have made a good recovery, however, and, with seasonable rains, young plants will be established wherever possible. Under proper care and cultivation, this is one of the most profitable crops.

This district is growing, and vegetable growing is proving highly profitable. Good roads are being put in in every direction to assist settlers.

**Somerville.**—Office-bearers of the Somerville Fruitgrowers' Association were elected, thus:—President, Mr. T. W. White; Vice-Presidents, Messrs. J. Unthank and J. E. Sage; Secretary, Mr. S. S. Gault; Treasurer, Mr. John Scott. Proposals are being considered for merging with the Peninsula Co-op. Association. The Annual Show will be held on 19th March, 1926.

### Strathfieldsaye.

Mr. A. Somerville reports, 20/11/25, that their principal fruits promise thus: — Apples — Jonathans (good), Munro (good), Cleos., Five Crown, Rome (light). Pears — Williams (light), other kinds good. Peaches—(good). Quinces (medium). Apricots and Plums (good).

Last year approximately 20,000 cases were exported from this station, but they do not expect so many this season.

**Wheelers Hill.**—A cool store is being erected at Elinora Orchard, Wheelers Hill. The proprietor, Mr. Sydney Stott reports that there is a good showing of most varieties of Apples. Thrips appeared on the Rome Beauties but not to any marked extent. The Hardie Mogul Power sprayer is proving very efficient; the engine and pump are powerful. The equipment includes a 200 gallon tank and two spray guns, working at 300 lb. pressure.

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### "Good Old Granny!"

Sir,—My partner just returned from London informs me that in a Bond street fruiterer's window he saw a sign "Granny Smith Apples 6 for 5/-." That amounts to tenpence each. Good for Australian Apples and good for old Granny!

Yours truly,
Sydney Stott.

Elinora Orchards,
Wheelers Hill, Vic.
26/10/25.

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**DON'T BE CRUEL TO YOURSELF.**

If someone advised you to take a few herbs after your meals, herbs that did not purge or were drastic in operation, but just helped you to naturally digest all the food you had eaten, would you worry with medicine? For the sake of convenience, A.M.S. is compounded of herbal juices, and can be swallowed in a small dose after every meal. Its effect is wonderful. The appetite improves, the liver and stomach becomes normal, and even the oldest man, dyspeptic though he be, feels fit and ready for a game with the kids. Sold by all chemists, 3/-, or by post 3/6 per bottle from T. A. Dickson, Chemist, Geelong, Vic.

## FRESH FRUIT MARKETING.

### Victorian Government Promises Help.

### Advance of £2,000.

The Minister for Agriculture (Col. Bourchier) announces that after conferences with the State Fruit Advisory Board he has approved of a scheme for assisting the sale of fruit. The scheme provides for the establishment of depots at various centres, special fruit trains, kerb markets, and judicious advertising regarding fruit direct from the growers. To start the scheme the State Cabinet would advance £2,000—this to be treated as an advance, to be repaid to the Government as soon as legislation is passed, empowering the imposition of a levy on growers to meet the cost and to organise the growers.

The following have been appointed on the committee:—Messrs. J. M. Ward (chairman); J. W. Bailey (representing southern fresh fruitgrowers); W. J. Foster (northern growers); J. Aspinall (metropolitan growers), J. R. Gorton (citrus).

Mr. B. S. B. Cook has been appointed manager at the rate of £800 per annum for six months, as from the 30th November.

The offer of the Victorian Central Citrus Association to place its offices at the disposal of the committee was accepted, and a portion of the rent and expenses will be borne by the fruit marketing committee. Any additional staff required will be appointed as deemed necessary. The £2,000 is considered to be sufficient for the six months' programme.

* * *

The complaint that Governments are slow to act will not be levelled in this instance. The present procedure, however, is likely to cause strong protest. Apart from the merits and demerits of the scheme, there are aspects which are causing uneasiness:—

(1) The £2,000 is an advance only. It must be repaid by the growers by a compulsory levy, therefore, it is the growers' money which the Board is handling, whilst as yet the Board has no constitution, and its membership is not elective.

(2) The position of manager was filled from the Board itself without advertising. The latter is a most irregular procedure, and probably without precedent. Even if the Board had the position "cut and dried" for one of its members, at least the courtesy might have been extended by advertising, to ascertain the names and qualifications of other applicants. If, after advertising, the Board had made its present appointment, it would have had the answer ready that the selected man had the best qualifications. The last thing which a Board or a public body acting in a representative capacity desires to have levelled against them is that of favouritism and of having positions "kept warm" for members.

Now, as regards the Advisory Board, there are some questions which the growers are asking:—(a) Why is this Board not elective and democratic? (b) Where is its constitution? (c) When can the growers have a voice in shaping its constitution and in deciding its personnel?

In addition to the above-mentioned advance of £2,000, growers must remember that the expenses of the Board over the past three years are a debit against the orchard tax funds when collected.

At the fruitgrowers' convention at Echuca last May, very strong exception was taken to some of the doings of the Advisory Board. A statement by a member of the Board, apparently made in all seriousness, that he had been appointed for life, caused strong protests. There has been ample time since May for the constitution to have been drawn up and submitted to the Fruitgrowers' Associations for approval, but this has not been done, and the Board still exists with the stigma that it is not representative. This is the crux of the position. A Board to speak for the growers should be representative and democratic. If this principle be violated there can be no real progress.

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**Retail Fruit Barrows.**—Following an offer by the Melbourne City Council, several fruitgrowers' organisations have combined to conduct two retail fruit barrows near the Flinders-street railway station. It is hoped that by limiting profits there will be a bigger turnover, and that prices on other barrows will be reduced, thus encouraging larger fruit consumption. The Secretary is Mr. T. E. Butler, 360 Collins-street, Melbourne.

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The appointment of Mr. H.A.Mullett as Superintendent of Agriculture for Victoria, in the place of Dr. A. E. V. Richardson who resigned some months ago, is very popular. Mr. Mullett was Dr. Richardson's right hand man for some time past, and he has demonstrated his ability and keen interest for the welfare of the man on the land.

# New South Wales.

## MURRUMBIDGEE IRRIGATION AREAS.

LEETON (18th November, 1925).

**Apricots and Elbertas.**—The Irrigation Commission has now decided finally to take all the Apricots and Elberta Peaches on the Yanco area for canning purposes, that it can possibly "can" process, and what it cannot deal with in that way, such balance will be accepted by it, when dried by the settlers, on a basis of 7d. per lb. The Griffith section of these areas is helping the Commission's cannery by drying these two classes of fruits.

**Gypsum.**—This is now coming in satisfactorily. Some of the orchardists are taking it in by bulk quantities. After worrying this matter well out, the Fruitgrowers' Association found that the best idea was for settlers to arrange to take this stuff by the group system, and the system has panned out alright.

**Fruit Diseases.**—Mr. Cooke, the orchardist at the Yanco Experiment Farm, recently gave a most interesting address to growers on Red Scale and Green Aphis. Methods of life of the insect pests and how and when to fumigate and spray, were effectually explained. Instead of Black Leaf 40, the lecturer advocated the Fruitgrowers' Association getting a truck of tobacco stems from the Sydney tobacco factories, and making their own sprays by a simple formula. By this process, the spray would be much cheaper, and at least equally effective. This lecture is the forerunner of others that will be given. Full advantage has not hitherto been taken of the advice of practical men at this experiment farm, and it is gratifying to know that a proper form of co-ordination will exist from now on.

**Tin-plate for Cannery.**—This is now arriving, and it will take the State cannery all it can do to make up for the loss of time caused by the seamen's strike. A difficulty may occur through the delay in the cannery dealing with the Cling Peaches.

**Fruitgrowers' Association.** — The matter of amalgamating with societies outside these areas for mutual protection as regards cannery supplies is under attention here, but no definite decision has yet been reached. In this respect the matter of the Federal bounty is an important one. Any amalgamation should be on an economical and simple basis; at all events that is the prevailing opinion at this end.

**Advisory Board to Cannery.**—Mr. Entiknap has been selected as representative by the Yanco Fruitgrowers' Association, and Mr. Glover by the Leeton fruitgrowers. The first meeting will take place at the cannery, and is now being called.

**Currants and Sultanas.**—Before the recent hail and rain storms they were looking tip-top, but these atmospheric disturbances have given them a set back.

**Round Table Conference.**—After the assurances of the New South Wales Minister for Agriculture, and the reforms he has promised, settlers are in fair heart. The town of Leeton is progressing with a number of new buildings, and the general outlook on this area is promising of really good results.

## CROP PROSPECTS.

### Batlow.

Mr. N. H. Case, Batlow, N.S.W., advises, under date Nov. 8th:—

The fruits principally grown here are Pears, Apples, Prunes, Cherries. Principal varieties:—Pears—Winter Cole, Packham's T., Jos. **Apples**—Jon., Granny Smith, L. Pippin. **Prunes**—D'Agen, Fellenberg, Sugar. **Cherries**—St. Margaret, Florence, Napoleon.

Crop anticipations.—**Pears**, medium; **Apples**, heavy to good; **Prunes**, heavy; **Cherries**, medium.

The crop will be considerably heavier than last year, due to a favorable setting season, and also to increased acreage of bearing age.

The acreage under fruit is approximately 2,000 acres.

Further additions to the

**Co-operative Cool Stores**

are in progress, and shares for the whole of the additional space have been allotted.

The **Co-operative Packing House** has increased its membership, and it is confidently anticipated that a very successful season is before it.

A total pack of **100,000 bushels** is expected. The policy of the Company is the development of direct selling to country districts. Past experience warrants the opinion that the bulk of the pack can be disposed of in this way with benefit to both the grower and the country shopkeeper. It entails the minimum of freight and handling; the fruit is delivered in the best condition, and the excessive costs incidental to marketing through metropolitan agents are done away with.

### Capertee.

**Apples and Pears Light.**

Messrs. Sim Bros. report of the 14th November reads:—

Our main fruits are Apples and Pears. Apples—Jonathans, Granny Smith, Five Crown (London Pippin), Rome Beauty, Delicious, Democrat, Fameuse. Pears—Williams, Packham's, Nelis, Winter Cole, Gansell's Bergamot, B. de Cap.

Generally, the crop of Apples and Pears is light to medium, mostly light.

We expect that the crops will be lighter than last season, but the quality promises to be better. Owing to the dry spring fungus trouble is practically absent.

About 400 acres are under cultivation, of which 300 acres are bearing; the rest are young orchards. We are unable to give the total of last season, but there was a lot of waste owing to fungus; we had a wet spring and much hail.

This year has been exceptionally frosty; we have experienced cold dry weather, and the season is very late.

### Griffith.

The Manager of the Griffith Producers' Co-op. Co. (Mr. W. Moses) reports, on Nov. 16th, that the main fruits in their district are Oranges, Apricots, Free and Clingstone Peaches, Prunes, table and wine Grapes, and a smaller acreage of Pears, Mandarins, Lemons and Apples.

Present indications are that the 1926 crops will be medium for all citrus and stone fruits, but all varieties of vines are showing well, and should black spot and downy mildew be kept in check, a good crop should result.

Green Peach aphis has played havoc with the Cling Peach crop, and despite sprayings with Red Oil and Nicotine Sulphate, it has been difficult to keep the pest under control, with the result that the average yield per acre will be considerably reduced.

Generally speaking the crops of citrus and stone fruits will be lighter than for 1925, but Apricots particularly should show a fairly substantial increase in tonnage, due to the increased acreage coming into bearing.

Correct figures of plantings of each variety of fruits are difficult to obtain, but the acreages in bearing for canning Peaches are 770 acres, Apricots 400, Oranges 500 acres, with practically double these figures of young trees of each variety from 1 to 3 years old.

Plantings of wine Grapes are extensive, and probably about 3,000 acres will be in bearing this year.

**Prunes** (Robe de Sargent and D'Agen) are heavily planted, but the great bulk of the trees are under 5 years old.

The quantity of fruit despatched to the metropolitan and local canneries, 1925, was—Apricots, 450 tons; freestone Peaches, 350 tons; clingstone Peaches, 2,000; Pears, 200 tons.

The country trade for 1925 absorbed 17,000 cases, and large quantities of summer fruits were despatched direct to the metropolitan markets.

The **Citrus season** for 1925 has practically finished, and with very satisfactory results. Washington Navels handled amounted to 26,000 bushels, Late Valencias 34,000 bushels, Mandarins 1,500 bushels, common Oranges 3,000 bushels.

**Export of Oranges.**

Three thousand, one and one-third bushel cases of Late Valencias were exported to Great Britain in three shipments of 1,000 cases each, and reports to date state that the fruit arrived in excellent condition, and selling from 23/- to 25/- per case.

### Lavington.

Mr. J. Buchhorn reports that the main products are Peaches—Briggs', High's and Hale's Early. Apples—Jonathan, Granny Smith. Pears—Williams, Packhams, Nelis, Josephine. Prunes—D'Agen, Angelina, Sugar, Grapes—Table and Wine. Table—Waltham and Black Muscat. Zante Currants — (Drying). Cherries — Guigne, Early Lyons, Florence, St. Margarets.

We expect a good crop this season, although lighter than last year. Peaches and Grapes promise to be up to the average, and in some cases better. Most of the other fruits will be lighter this season. Pears set heavily, but three-quarters fell from the effects of Black Spot, with the exception of those sprayed with lime-sulphur at the pinking stage. It is not the usual thing to spray for "spot" here, as it was almost unknown until the past two seasons.

**Grapes** show exceptionally well, especially after the last two years' gruelling with downy mildew, owing to exceptionally wet summers.

## HELPING THE FARMER AND FRUITGROWER.

### What N.S.W. is Doing.

The many ways in which the Department of Agriculture in N.S.W. is helping the man on the land, is set out in an attractive brochure issued by the Agricultural Department of the Mother State. It is a record of effective service. Everyone interested in agricultural and horticultural pursuits should obtain a copy of this valuable booklet.

# Packing Classes Appreciated.

## Splendid Enterprise by Victorian Department of Agriculture.

**School Children are Efficient.**

The photograph on this page, courteously supplied by Mr. J. M. Ward, Superintendent of Horticulture, shows the class of Pakenham Upper (Vic.), school children (ages varying between 12 and 14 years), who won the Packing Competition Shield this year at the Melbourne Royal Show. Names, left to right:—Grace Tomlinson, Marjorie Jackson (who won second prize out of 87 competitors), Amy Jackson, Eveline Eicke, Doris Gardener, Connie Tinkham. Front row:—Leslie Bowen, Jim Mozon (1st prize out of 87 competitors).

Not having a cool store in their district, the children packed their fruit in March and forwarded it to the Government Cool Stores, where it was not seen again until opened for judging at the Royal Show in September.

Although much practice had to be done by the children who won the Shield, they deserve great credit. It must be remembered that the various other schools that competed are also keenly interested in their work, and close rivals to the winners who will have to show still greater improvement next year if they are to achieve honors and retain the Shield.

In some districts where only the children learn to pack, the moral effect which the neat and splendid work of the school pupils has on the grower is very noticeable. When placed beside the work of the grower who is not acquainted with the correct methods of packing, the excellent results obtained by the children act as incentive to the former to improve his methods, thus bringing about a general all round improvement in packing.

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**A Grower's Appreciation.**

Mr. P. Val Kerr, Manager of the Park Orchard, North Ringwood, Vic., writes to the Editor on 14th November, thus:—

"I would be glad if you would insert in the "Fruit World" my strong approval of the very forward move by our Horticultural Branch of the Agricultural Department in establishing packing classes for school children.

"The first class started at Ringwood two seasons ago, and I have supplied it with fruit ever since. In addition I have taken a keen personal interest in the work; consequently, I am in a good position to judge of its results and progress.

"During the first season the children packed nothing but Yates Apples. The fruit packed by them was included in a truck of Yates sent to Sydney, the lowest price obtained for which was 18/- per case.

"Undoubtedly, the children have made rapid progress, and I venture to say that if all our export fruit were as well handled, there would be no complaint from the United Kingdom regarding the pack. The display made at our last Royal Show was equal to the best export pack of Victoria.

"I would like to add a word of praise to the tact displayed and the conscientious interest taken by the instructors. No fruitgrower need fear for the handling of his fruit if entrusted to their care."

[Mr. Kerr's spontaneous appreciation of efforts of the Department's activities is very welcome; further, it is typical of this courteous and talented fruitgrower. Mr. Kerr went through a course of horticulture and fruitgrowing at the Burnley School of Horticulture, then after running his own orchard successfully at Tyabb, enlisted for active service. After the signing of the Armistice he was commissioned as a lecturer on fruitgrowing to the soldiers, and then sent to America to study conditions there (before returning home). He is now in charge of the Park Orchard at North Ringwood. Mr. Kerr has lectured frequently since his return to Australia and he has consistently emphasised the value of standardised growing and packing.

His appreciation, therefore, of the present methods is based on wide knowledge, and is to that extent the more valuable. Editor. F.W.]



**Pakenham Upper School children who won the Exporters' Shield for fruit packing; see photo. of shield on page 507.**

## Personal.

Mr. J. Donaldson, of Paradise, South Australia, has accepted for a couple of months, the position as Secretary of the South Australian Fruitgrowers and Market Gardeners' Association, to fill the break caused by the lamented death of Mr. Naughton.

## 1926 EXPORT PROSPECTS.

**Satisfactory Outlook.**

In reply to a letter asking for a report on the probable English fruit market conditions for 1926, Mr. Fred. J. Andrew, Agent in Victoria for T. J. Poupart Ltd., Fruit Salesmen, Covent Garden, London, has been advised as follows:—

"It is difficult to forecast next season's market prices. The United States have a fairly big crop. Ontario exceptionally heavy. Nova Scotia normal. Home crop big. Continental light. United States reports a shortage of late varieties. If this is correct it will prove advantageous to Australia and it is our opinion if no serious industrial troubles arise, prices for clean fruit will quite equal 1925."



# THE "Sunraysed" Courier



**COMMONWEALTH DRIED FRUITS CONTROL BOARD.**

**Commercial Representatives:**
A. F. Bell, E. S. Whitehead.

**Government Nominee:**
W. C. F. Thomas (Chairman).

**Growers' Representatives:**
J. J. S. Scouler, Red Cliffs, Vic.
H. D. Howie, Renmark, S. Aust.
A. L. Johnston, Mildura, Vic.
A. Yeates, Millendon, W.A.
Secretary—R. Marx.

**VICTORIAN DRIED FRUITS BOARD.**

**Commercial Representative:**
J. M. Balfour (Chairman).

**Government Nominee:**
E. Meeking.

**Growers' Representatives:**
Jas. Milne, Red Cliffs.
E. T. Henderson, Mildura.
A. Lochhead, Irymple.
Secretary—A. D. Brown.

**SOUTH AUSTRALIAN DRIED FRUITS BOARD.**

**Commercial Representaaives:**
L. N. Salter (Chairman).

**Government Nominee:**
G. A. W. Pope.

**Growers' Representatives:**
H. D. Howie, Renmark.
H. G. Evans, Renmark.
H. Kay, McLaren Vale.

**Secretary:**
W. N. Twiss.

**AUSTRALIAN DRIED FRUITS ASSOCIATION.**

**Board of Management.**
H. D. Howie, Renmark.
T. C. Rawlings, Mildura.
J. B. Murdoch, Waikerie.
D. C. Winterbottom, Mildura.
E. J. Roberts, Irymple.
General Secretary—W. N. Sumner.
South Australian Secretary—T. Stan. Oldham.

**Manager for United Kingdom:**
W. P. Caro.

## Cincturing the Currant.

**(By C. G. Savage, Deputy Horticultural Instructor, South Australia.)**

### Cincturing.

This important operation is carried out on the Currant vines during November, when the plants are in bloom, or just after the flowering stage. There appears to be some little doubt as to whether the early or late cincturing is the more advisable, definite work is now being carried out in that regard. Speaking generally, most growers prefer to wait until half to two-thirds of the caps have fallen from the flowers before commencing cincturing.

Prior to cincturing, the stems of the vines should be cleaned of rough bark where the operation is to be performed, this preparatory work will save a considerable amount of time when cincturing is being carried out, and will save the edges of the knives.

Various methods of cincturing have been recommended from time to time, but they have practically been reduced to two, viz., the single incision, and the double cut, with the removal of the strip of bark.

The single incision is used on young vines bearing their first crop, and upon very old vines; the double cut, with the strip of bark removed, being used on vigorous vines, and is the one in general use. The strip of bark is removed by making two cuts around the stem of the vine about 1-12th to 1/8th inch apart, then withdrawing the bark between the two cuts. The strip is also removed in one cut by the aid of a U shaped bladed knife, or a double-bladed knife, the end of the knife in either case having the U or the two blades set so that the strip of bark of the required width is removed as the knife is running around the stem of the vine.

The reason for this operation is not always clearly understood, and it may not be out of place here to briefly describe it.

The Currants are attached to the main bunch stem by minute stalks or pedicels, the point of attachment of the berry to the pedicel appears insecure. The cincture temporarily checks the return of the elaborated sap from the leaves, which are the food factories, to the roots. This holding up of the elaborated sap enables the small berries to become firmly attached to the pedicels, thus insuring a good setting of fruit.

To assist the vine in repairing the damaged tissue, it is advisable to cover the cincture. This is not done by many growers, but those who do follow it, find it an advantageous practice. Thin strips of calico, steeped in grafting wax is found admirable for the purpose. Cinctures so treated have been found to be completely callused over in six weeks.

Grafting wax may be made by boiling together 1½ parts of tallow, 2 parts of beeswax and 4 parts of powdered resin. As this mixture is highly inflammable, it is not advisable to heat it over an open fire, as the flames may ignite the mixture. A piece of galvanised iron placed over the fire and the mixture heated in a pot on the iron will prove satisfactory.

Strips of calico are torn in convenient widths and wound round the ends of lengths of bamboo, in which openings have been cut at short intervals. The calico is now held into the boiling wax, the openings in the bamboo allows the molten wax to soak through the centre of the roll of calico. When the wax has soaked through the roll, it is removed from the pot and allowed to drain, it may then be stored away for future use. When using the waxed cloths, strips of ¾ inch in width are torn off the roll and placed around the cincture, the heat of the hand being sufficient to warm the wax so that it will stick to the stem. To prevent the waxed cloth sticking to the hands it is advisable to rub a little soft soap or oil on the palms.

## FEDERAL COUNCIL MEETS.

The annual meeting of the Australian Dried Fruits' Association was held in the Board Room of the Commercial Travellers' Club, Melbourne, from Wednesday, October 28th, to Saturday, 31st idem.

The following delegates were present:—Messrs. H. S. Corbould, H. H. Goodman, A. L. Johnstone, G. E. Kitchin-Kerr, N. K. Morris, D. Radclyffe, T. C. Rawlings, E. J. Roberts, H. R. Sloan, M. Young, A. R. Lawrence (Victoria), Messrs. R. C. C. Frankel, H. D. Howie, J. B. Murdoch, F. McGlasson, E. E. Seary, J. Victorsen (South Australia).

**Agents' Representatives.**—Messrs. C. A. L. Morant (Messrs. Gibbs, Bright & Co.), J. Dickson (Messrs. Harrisons, Ramsay Pty. Ltd.), N. R. Jones (Messrs. E. De Garis & Co. Pty. Ltd.).

**Government Representative.**—Mr. J. M. Ward (Victoria Department of Agriculture).

**General Secretary.**—Mr. W. N. Sumner.

Mr. T. C. Rawlings was elected Chairman of Council.

**Defections from the A.D.F.A.**—A very long discussion took place on this item, when nearly all members of the Council spoke. The general opinion expressed was that growers were induced to part with their fruit by being promised cash, but it was found that, in general practice, these cash offers did not give growers the benefits that were expected, and that, generally speaking, by parting with their fruit for what they considered a cash offer, they were making less per ton than was being obtained by A.D.F.A. growers. Delegates were unanimously of opinion that, if some scheme could be found whereby those growers who consider they must have cash for their fruit, can be put on the same or better footing than the "outside" buyers offer, a very great number of our difficulties in respect to "outside" fruit would disappear.

**Distribution of Dried Fruits.**—The following resolution was passed—"That this Council authorises the Board of Management to take such steps as they think necessary to stabilise the industry, and, if the Board deem it necessary, to apply some portion of the Association funds for the purpose."

The Council considered the Export Advances Act should be amended, to enable the grower to get the advance at an earlier date.

The Council strongly recommended that further efforts be made to secure New Zealand Preference.

Resolutions were passed:—

"That the Mildura District Council and the Renmark branch of the A.D.F.A. be asked to form committees to investigate the grub question; also, the question of pruning, drying and processing of Gordos, and development of trade, and problem of treatment and packing of Muscatels and table Raisins; to make recommendations to the Board of Management for 1926 season."

"That the Institute of Science and Industry be asked to make investigation on the general storage of dried fruits in steamers, with relation to position in ships and cargo with which it is stowed, and obtain reports on outturn, with the object of ascertaining the effect on the fruit as regards grubs, sweating and sugaring."

"That the Federal Council of the A.D.F.A. very much appreciate the efforts Mr. Clapp, Chairman Victorian Railways Commissioners, and his officers, have made to help the Dried Fruits Industry, and sincerely hope to have their continued co-operation in the future."

"That the Board of Management arrange that the adjustment of over and under export be finalised at 31st December each year, by valuing unsold stocks in Australia or abroad, so as to allow growers' accounts to be finalised before the new season's fruit is available. Same to apply to 1925 fruit."

"That the Federal Council of the A.D.F.A. take this opportunity of recording their appreciation of the work done by their late President, Mr. W. B. Chaffey, C.M.G., and Mr. F. L. McDougall, in the cause of Imperial Preference, and wish to congratulate them on the attainment of the substantial measure of preference that is now operating in Great Britain in favour of Australia."

"That the members of the Federal Council of the A.D.F.A. wish to record their appreciation of the work done by Mr. Caro on their behalf in London, and wish to congratulate him upon his appointment by the Export Control Board."

"That members of the Federal Council of the A.D.F.A. wish to congratulate the Export Control Board upon the success attendant on their efforts to attain for growers the full benefits of the preference granted by the British Government to Australian Dried Fruits."

Addresses by Mr. Langdon and Mr. Meeks were much appreciated.

**Uniform Legislation.** — Resolved: "That, in order to meet the objection raised by New South Wales to passing uniform dried fruits legislation, the Federal Council of the A.D.F.A. recommends to the Ministers of Agriculture for Victoria and South Australia that they be prepared to legislate for Apricots as well as the vine fruits already prescribed."

Resolved (subsequent to an address by Mr. Harold Clapp)—"That the Secretary of the A.D.F.A. be instructed to write the Secretaries of Railway Departments, Departments of Agriculture, and Education in New South Wales, South Australia and Western Australia, urging them to collaborate on schemes for Dried Fruit Publicity similar to those successfully carried out by Victorian Departments, and that this Council pledge its efforts to follow up such action until all States are working together."

**Board of Management.**

Messrs. Rawlings, Howie, Murdoch, Winterbottom and Roberts were duly elected.

**Bounty on Currants and Lexias.**—Resolved: "That the Board of Management be instructed to make the necessary representations in connection with the bounty on export quota for Currants and Lexias."—"Australian Dried Fruit News."

## A PIONEER PASSES.

### Mr. H. H. Hatfield, of Box Hill.

Widespread regret will be felt at the death of Mr. Henry Hawkins Hatfield, on 2nd November, at Box Hill, Victoria, at the age of 81 years.



*The Late Mr. H. H. Hatfield.*

The late Mr. Hatfield was greatly beloved; his ripe experience was always esteemed as a judge at fruit shows and as a delegate to the state, interstate and fruitgrowers' conferences. He was President of the Victorian Fruitgrowers' Association on several occasions. He was also a councillor of the Nunawading Shire, being for many years Shire President.

The deceased gentleman had a broad mind, and large vision—a man of sterling worth. His passing is a loss to Australia. Mr. Hatfield leaves a widow, six sons and one daughter.

## APPLE EXPORT.

### Totals for Last Season.

The 1925 exports of Apples from the various States were:—Tasmania, 1,313,265 cases; Victoria, 414,067 cases; Western Australia, 337,916 cases; South Australia, 30,533 cases; New South Wales, 22,001 cases, making the total exports from the Commonwealth 2,117,782 cases.

The principal ports to which the fruit and the quantities sent are as follows:—London, 1,448,649 cases; Liverpool, 319,721; Hull, 233,319; Southampton, 14,219; Continent, 60,700; East, 49,643.

* * *

The export from New Zealand in 1926 is estimated by the N.Z. Fruitgrowers' Federation at 400,000 bushels.

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It is reported from U.S.A. that the horticultural experiment work of Luther Burbank will be taken over by the Stanford University which will establish an endowment fund to secure perpetuation of Burbank's celebrated work.




# The Pruning of Orange Trees.

**Careful Experiments are Detailed.**

**"Very Little Pruning Necessary or Desirable."**

**Information of Interest and Value to Every Citrus Grower.**

**The results of investigation into the various phases of Citrus culture are always of interest. In this article Mr. A. D. Shamel, of California, an investigator whose opinion is always worth having, deals with the subject of pruning Orange trees. After describing the experiments the opinion is that with healthy full-bearing Washington Navel Orange trees, little pruning is necessary or desirable.**

### The Pruning of Orange Trees.

An interesting article by Mr. A. D. Shamel, in a recent issue of the California Citrograph, describing the results of ten years' study of individual tree performance of pruned and unpruned Washington Navel Orange trees of full bearing age has been published by the N.S.W. Department of Agriculture, thus:—

**The primary object** of this study was to determine the comparative yields of healthy, unpruned, full-bearing Washington Navel trees and those of comparable trees pruned by experienced pruners using somewhat different methods, particularly in the amount of growth cut off during the pruning operations.

The 110 trees used in the experiment, which had been planted in 1903, were divided into six plots for the experiment, five of them consisting of ten pruned and ten unpruned trees each, and one of five pruned and five unpruned trees. The pruned trees alternated with the unpruned ones, and in such a way that the pruned trees were always adjacent to unpruned ones. It was felt that this arrangement was such as to give reliable comparative data, and subsequently this proved to be the case.

**The first pruning**

was done in the spring of 1914, at the same time by all the pruners. The death of pruner No. 6 shortly afterwards prevented his pruned trees from receiving further attention. The only pruning given his trees was the first one, and they were not subsequently touched.

The trees pruned by No. 5 were given a second light pruning in 1918, but owing to the removal of this pruner to another district these also were not pruned further.

The pruned trees of No. 3 were not pruned after the first time until 1918, but from that time on they were lightly pruned each year, mainly by cutting out dead wood or abnormal growth.

The pruned trees of No. 4 were not pruned after the first time until 1918, when they were given a light pruning, which was repeated in 1919 and 1922.

The pruned trees of No. 2 were repruned in 1918 and again in 1919. In 1919 some of the larger inside limbs were removed in order to open up the tops. No subsequent pruning was done.

The pruned trees of No. 1 were repruned in 1918, and no subsequent pruning was done.

The difference in pruning on the different plots was mainly in the degree of severity or the amount of vegetative growth removed. All of the pruners excepting No. 3 cut out the dead and older undergrowth from the inside of the trees. In the case of No. 3, much of the pruning was done from the outside of the trees, so that a part of the growth removed was of the younger and more productive type.

**After the first pruning it became apparent that the pruning in all instances reduced the yields, with no compensation in either the size or grade of fruits.** Consequently all subsequent pruning was abandoned for a couple of years, after which a second light pruning was made with great caution. Subsequently a little more pruning was done in two or three of the plots, but without any apparent beneficial results. Every pruner was given an absolutely free hand.

**Observations.**

In the early part of the period during which performances were recorded, the fruit from each tree was sorted as to sizes and grades similar to those made in commercial packing houses. It was a surprising fact that

there was no improvement apparent at any time in the size or grade of the fruits from the pruned trees as compared with those of the unpruned trees.

There was a uniform drop in the yield of the pruned as compared with the unpruned trees after the first pruning in 1914 and the second one in 1918. In the case of No. 3, the pruned trees gave consistently lower yields than the unpruned trees throughout the entire period. In the case of No. 6, the yield of the pruned trees was lower than that of the unpruned for two years, since which time they outyielded the unpruned trees. It should be remembered that in this plot only one pruning was done —that of 1914.

At the date of the report it was impossible without a map of the experiment to pick out with certainty the pruned and the unpruned trees. What, asks the writer, becomes of the older and dead wood which develops in all citrus trees and usually on the under sides of the leading branches? The only explanation apparent is that it dries up and drops from the trees much as the old leaves do.

### The Results.

The average yields of the ten pruned and the ten unpruned trees for the ten-year period 1915-24, and the gain or loss from pruning in each instance, were as follows:—

| Pruner. | Pruned Trees. | Unpruned Trees. | Loss or Gain |
|---|---|---|---|
| | lbs. | lbs. | lbs. |
| 1 .. .. | 157.2 | 158.4 | — 1.2 |
| 2 .. .. | 161.1 | 176.2 | —15.1 |
| 3 .. .. | 153.7 | 180.1 | —26.4 |
| 4 .. .. | 159.7 | 176.5 | —16.8 |
| 5 .. .. | 160.6 | 165.5 | — 4.9 |
| 6 .. .. | 166.9 | 148.6 | +18.3 |
| Average . | 159.7 | 169.1 | — 9.4 |

The only gain in yield from pruning was in the case of No. 6. Here only five pruned trees were compared with five unpruned trees, and only one pruning was carried out owing to the death of the pruner shortly afterwards. The heaviest loss was in the plot of No. 3, where the pruned trees consistently produced less fruit than the unpruned from the beginning of the experiment. These trees were pruned from the outside instead of from the inside, as was the case with the trees in the other pruning plots. These trees were also the most heavily pruned of any of the pruned trees.

In general it will be noted that at the end of the ten-year period the pruned trees produced an average of 9.4 lbs. of fruit less than the unpruned trees. "This fact," says Mr. Shamel, "should be considered with the information that there has been no improvement in size or grade of the fruits on the pruned as compared with those on the unpruned trees. In computing the economic loss from pruning in this experiment the cost of pruning must be added to the loss of the fruit."

### Conclusions.

Mr. Shamel concludes that with healthy, full-bearing, Washington Navel Orange trees little pruning is necessary or desirable. Any attempt to make up through pruning for lack of fertilisation, irrigation, fumigation, or other cultural care, has been disastrous wherever tried. Individual tree care, including the removal of objectionable branches, excessive dead wood, diseased or injured growth, undesirable limb sports and related work is not only desirable but essential to successful grove management. In the case of very old and decadent trees, the systematic renewal of such trees by judicious pruning is considered advisable.

Severe pruning, including the removal of healthy fruit-bearing growth or shaping of the tree, should not be practised. The losses from radical pruning are not confined to the cost of the work and the loss of crops after pruning, but the reduced yields are likely to continue for many years.



**Mrs. C. J. Parnham, of Melbourne, believes in assisting the fruit industry by advertising at a Fancy Dress Ball.**

## N.S.W. CENTRAL CITRUS ASSOCIATION.

### Half a Million Bushels Handled this Season.

General satisfaction is expressed at the appointment of Mr. H. G. Such as Manager of the N.S.W. Central Citrus Association. With his proved business ability, unfailing tact and courtesy, Mr. Such is an acquisition.

It is estimated that when the present citrus season closes, the N.S.W. Association will have handled between four and five hundred thousand cases of Oranges, from its thirteen packing houses.

Special developments in the activities of the Association are as follows:

Opening of New Zealand Market, which now takes from the Association more than half its entire requirements of citrus fruits from New South Wales.

Opening of Brisbane Market, which is now supplied direct from the packing houses instead of via Sydney as hitherto.

The Association has also despatched thousands of cases to England.

With the exception of Leeton and Patterson River, all important Orange growing districts in New South Wales are represented by packing house members of the Association: thus, the Association can rightly claim to represent citrus growers on all questions relating to citrus fruits, and is recognised as such a body by all Government and Departmental officers.

### Italy will Send Fewer Lemons to U.S. Markets.

It is reported that California competition, the Tariff, and fear of quarantines are killing Italian interest in the United States as a market for winter Lemons. Greater efforts are being made to regain the pre-war Russian and German markets.

## CURLWAA IRRIGATION AREA.

### Large Citrus Crop Handled.

During the three months ended 30th September last, the weather was cold and dull. The rainfall in July was 94 points, in August 59, and in September 138. A stock and domestic supply was given in July, and the first irrigation was started on the

24th August and completed on the 14th September.

A large citrus crop was handled by the local Co-operative Society (Curlwaa Co-operative Fruit Society), and satisfactory prices were realised. At the Melbourne Royal Show, held in September, 1st prize for the best collection of Citrus was again awarded to the Curlwaa exhibit, and 1st prize was also gained for Grape fruit.

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24/11/25.

The Manager, "Fruit World."

Dear Sir,—

. . . I am trying to get my fellow growers to subscribe to the "Fruit World." I am convinced that it is the best of its kind in circulation, and is what the growers require.

Yours sincerely.
GEO. BROWN,

Hon. Sec., Williamstown Branch, S. Australian Fruitgrowers' and Market Gardeners' Association.

## LONDON FRUIT BROKERS.

### Challenge to Sir Joseph Cook Not Accepted.

Echoes are still heard of the controversy which recently raged over a report issued by the Australian High Commissioner in London (Sir Joseph Cook) reflecting on the trade practises of London fruit brokers.

The position of the brokers on this subject is set out by advertisement in this issue.

Mr. H. G. Colombie, of E. Melbourne, Vic., writing further on this subject, expresses surprise that the report of the High Commissioner states that two Victorian shipments were sent to the London saleroom, whereas five shipments in reality went forward. One shipment suffered because of a strike, another was more or less wasty, yet the prices obtained compare favorably with Covent Garden returns. The other shipments realised good prices, two of them averaging 22/6 to 25/6 per case.

"It is an indisputable fact," continues Mr. Colombie, "that the city saleroom is the recognised centre for the sale of Oranges, where about 80 per cent. of the total imports to London (amounting to several million bushels) are centralised for sale.

"Messrs. Isaacs are the pioneer fruit brokers of Great Britain, and have been established for 110 years; their reputation is unassailable.

"You will see from the copy of letters referred to that despite their representation to the High Commissioner no correction has been made by the latter, and as Messrs. Isaacs and their fellow brokers court the fullest investigation in their dealings, they took action against the High Commissioner, not with a view to obtaining damages, but to obtain redress.

"However, the plea of 'absolute privilege' on the part of the High Commissioner (on which he succeeded on 24th July, 1925) has left the matter in a most unsatisfactory position. I submit that if the statement made by the High Commissioner is true, it should be fully proved for the benefit of Australian and other growers, who make such extensive use of the city saleroom. On the other hand, if the statement cannot be justified, it is elementary justice that the wrong committed should be righted.

"It is quite untrue to state (as Mr. A. J. Arnot recently alleged) that 'those who issued the writ did not proceed with it.' I have my principal's authority to deny this. If it is correct that 'Australia House were prepared to produce evidence in support of their statements,' one is only left to wonder why 'absolute privilege' was pleaded, instead of 'justification' when the alleged evidence could have been examined by the High Court.

"I have received definite instructions from the four city brokers to have a letter inserted in such Australian papers as I may select, and to take whatever steps I consider desirable to refute the unfounded statement, their only object being to put themselves right with the Australian public, even if this entails further legal proceedings."

## ESSENCE MANUFACTURING IN AUSTRALIA.

The efforts being made to obtain some support from the Commonwealth Government for the encouragement of the Australian essence manufacturing industry in Australia, are being continued. Essence manufacturers are potential large users of fruit, so the matter is of considerable interest to fruitgrowers.

Owing to the Federal elections, it has not been possible to obtain the attention of those in authority, but now that these are out of the way, it is hoped that it will be possible to gain some relief.

The chief drawback to the development of the industry as has been pointed out in these columns, is the excessive amount of excise duty imposed on rectified spirits of wine, which are used in the extraction of the flavors from the fruits, coupled with inadequate import duties on imported essences.

With the rectification of these matters, there should be no necessity to import fruit essences from overseas, the Australian fruits being all of high enough quality to produce essences satisfying enough to the most exacting critic.

**H. M.**
**WADE**
**& CO.**
*Fruit Merchants*
Prompt Advices of Sales
— CHEQUES WEEKLY —
**471 FLINDERS LANE**
**MELBOURNE**
And WESTERN MARKET.

# Bunchy Top of Bananas.

**Cause of Disease Definitely Established,—Virus Transmitted by Aphides.**

**Helpful Suggestions to Growers in Lightly Affected and Badly Affected Areas.**

**Valuable Report by Professor E. J. Goddard, D.Sc., M.A., Supervisor of the Bunchy Top Investigation Committee.**

**Once again the Australian fruit industry is under a debt of gratitude to men who have devoted their lives to the cause of science.**

**Overcoming all obstacles, the baffling problem of the Bunchy Top disease has been solved. The pronouncement is definite. Bunchy Top is a virus disease transmitted by aphis.**

**The report herewith (republished from the Queensland "Agricultural Journal"), has just been submitted to the Bunchy Top Control Board, consisting of Sir George Knibbs (Institute of Science and Industry), Messrs. G. Valder and E. Graham, Under Secretaries for Agriculture, in N.S.W. and Queensland respectively.**

**All honor to the Investigation Committee — Professor E. J. Goddard, D.Sc., M.A. (Supervisor), Mr. C. J. P. Magee, B.Sc. (Assistant Plant Pathologist), and Mr. H. Collard (Horticulturist).**

**Much research work remains to be done to determine the best method of ridding the country of the disease. Doubtless the Investigation Committee will continue its good work to benefit this important primary industry.—Editor.**

## Cause and Nature of Disease.

IT HAS been definitely proved that Bunchy Top in Bananas is a disease transmitted by the common dark Banana aphid—Pentalonia nigronervosa. The intimate association of these insects with the disease was proved by observational and experimental work as early as January and February of the present year, but it was considered not to be in the interest of the investigation or of the Banana-grower that any official statement should be made earlier than at the present time. It is very easy to form opinions as to the nature of such a disease, but the scientific investigator concerned with such a disease as Bunchy Top, on which much effort has been expended in various parts of the world, must prove his statements to the hilt, and any official communication should be as complete as possible.

The preliminary evidence of the experimental transmission of the disease by means of aphides was obtained in January and February of this year at the Laboratory, Tweed Heads, and at the Queensland University, but it was necessary that these experiments should be confirmed under glasshouse conditions—which were available only in April, 1925. Growth of the plants under winter conditions had delayed the suitable time for experiments, but now the final proof is available. The evidence in support of this statement is briefly as follows:—

Forty healthy plants from Bribie Island, free from any insects, were planted in tubs in the glasshouse—twenty in each half of the glasshouse, which is divided by a wall into two insect-proof sections. In the case of one set of twenty plants aphides from affected plants were transferred to the individual plants, and of these every plant has now developed the symptoms of Bunchy Top within a period of less than one month since the transference of the aphides. It is noteworthy that not one of the other set of twenty plants has developed any signs of Bunchy Top. This final proof of the transmission of the disease has become available only during the past week.

The foregoing remarks should serve alone to justify the delay in the official publication of the discoveries made by the investigation. These results, we are aware, have become more or less known unofficially throughout the affected area, but there are further very definite reasons why no official blessing has been given to statements which have made their way into the Press. It is one of the main objects of such an investigation to proceed further even than elucidating that a certain insect transmits the disease, and to elaborate some means of controlling the disease.

In facing such a problem we have been concerned with determining whether the disease can be transmitted by any other insect, and whether the disease can be transmitted from Banana plants to other species of plants, such as Hemp, Canna, &c., by aphides or other insects. All these facts have a bearing on the possible methods of control of the disease.

## A Virus Disease.

The evidence now available justifies us in regarding the disease as a virus disease transmitted, at least, by the dark Banana aphis—Pentalonia nigronervosa. In some virus diseases there is a marked effect in the phloem—that part of the plant which serves for the transference of food material from the leaves to other parts of the plant. Detailed examination of this part of plants affected with Bunchy Top, as well as of associated tissues, has revealed a most interesting and unique pathological condition, the details of which will be of much interest to the scientific world when they have been described in scientific language.

It is unnecessary to discuss these changes at this stage beyond stating that the representatives of vessels known as sieve tubes, serving normally for the transportation of food material, have undergone a peculiar alteration in certain regions of the phloem of the leaves of affected plants. This condition has bearing in some interesting way on the broken green streaks so characteristic of affected plants, and serving for the early detection of the disease. Perhaps the most significant aspect of these conditions in the phloem is the corroborative evidence they lend to the interpretation that Bunchy Top is a virus disease—that is, a disease due to an ultra-microscopic organism.

We have definite evidence that Bunchy Top is transmitted by the Banana aphis—Pentalonia nigronervosa. As this species of aphis is widespread in Banana plantations of Northern Queensland, where as yet no Bunchy Top has been reported, there is reason to believe that in Northern New South Wales and South-Eastern Queensland this insect is carrying some factor which induces the disease.

Reasoning by analogy and taking as an instance other aphis-transmitted diseases, such as some of the degeneration diseases of the common Potato, it would seem that Bunchy

Top falls in the category of so-called virus diseases. This class includes those transmissible or infectious diseases which

**are perpetuated indefinitely**

by vegetative growth and reproduction, and of which no cause has yet been identified and demonstrated—except in the recent cancer investigations, where specially improvised apparatus was used. The name "virus" is the name given to this "unknown" cause.

The virus, which by some pathologists is supposed to be of the nature of an ultra-microscopic organism, seems to be associated with the plant juice or sap. This class of disease can in many cases be quite readily transmitted from diseased to healthy individuals by direct inoculation of sap. In the case of other virus diseases, it is necessary that the inoculum be introduced into a particular region of the vascular system of the plant.

There are some virus diseases which are transmitted only by means of aphides and by grafting, and in the case of these it has been shown that the aphis inserts the proboscis into the region of the phloem. Bunchy Top would appear to belong to this latter group.

It would be premature to conclude definitely that the disease cannot be transmitted by direct inoculation of sap, but the early out-of-doors experiments made in 1924, and more recent experiments made with sap inoculation in the glasshouse at the same time as the successful experiments with aphis-infection, have as yet failed to give results. The excessive development of chlorophyllous tissue, together with the dwarfing of the plant and rosetting of the leaves, support the idea of the virus nature of the disease.

The absence of symptoms from foliage that has attained full growth before the introduction of the virus is also a characteristic of these infectious diseases.

In the case of Bunchy Top plants, the first symptom of the disease is the appearance of broken dark-green streaks along the secondary veins of the leaf blade. This symptom does not later appear in leaves which were thrown earlier and had attained maturity. Further evidence is the fact that eyes removed from a rank Bunchy Top stool, surface-sterilised and planted in sterilised soil under glasshouse conditions, have in all cases produced Bunchy Top plants. Internal examination of such eyes reveals no organism, under microscopic or cultural tests, on which suspicion could lie.

It should be stated that among the various theories which were previously put forward to explain the cause of Bunchy Top, there was that which postulated that aphides were the cause of the disease. This theory was put forward by Mr. J. Marks, of Terranora, in 1922, and has had some following on the part of other planters in various parts of the affected areas. The position in this respect, when the present Investigation Committee undertook duties, was that nothing had been proved or disproved, and an open mind was displayed in respect to this and the other theories as to the cause of the disease. It can now be definitely stated that the cause of the disease is no longer a matter of opinion, and that its nature has been definitely established.

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### Control Measures.

A knowledge of the nature of the disease and its mode of distribution enables us at this stage to make definite recommendations to growers in lightly affected areas; and the value of such has been to some extent attested in the field. It is to be understood, however, that there still remains ahead of the Investigation Committee a considerable amount of work involving the elucidation of certain aspects which may have an important bearing on the matter of control. As examples of such we might refer to the necessity for a knowledge of—

(a) Details of the life-history of the aphides;

(b) Number of generations of aphides through which the virus persists;

(c) Liability of other plants, such as Manilla Hemp, Canna, Arrowroot, &c., to the disease;

(d) Habits of the dark Banana aphis in respect of other possible host plants, &c., &c.

Progress is being made in the investigation of such, but it is quite premature to attempt at this stage to lay down final recommendations applicable to the entire affected area. It is for the reason that we feel that valuable recommendations can be made for the lightly affected areas, and that certain unjustifiable semi-official statements have recently been made in the Press, that an attempt is here made to set out the exact position in the present state of our knowledge.

**The disease is spread by the transference of affected suckers and by means of aphides.**

The carriage of the disease to new or lightly affected areas can be largely avoided by the elimination of the first method by growers, who should understand that any plantation which has ever developed the disease in any part is to be regarded as dangerous in practice.

The distribution of the disease by means of aphides is facilitated by the presence of one or a few affected plants in a plantation and by the proximity of affected plantations. Winds may assist the aphides to traverse fairly wide zones, but we feel that the adoption of the following recommendations will enable growers in lightly affected areas to combat the disease by making conscientious efforts to cope with the methods of natural distribution.

**Recommendations to Growers in Lightly Affected Areas.**

(1) Secure suckers only from areas in which Bunchy Top has not yet been recorded. Such areas are available only in Queensland, some distance north of the Brisbane River. No reliance should be placed on any apparently healthy plants in any plantations in which Bunchy Top has ever appeared, as it may happen that the disease may be about to develop in such.

(2) Carry out at least a weekly examination of each plant in each stool, paying careful attention to the last leaf in each plant, and observing whether there is any trace of the characteristic broken dark streaks in the leaf blade. A definite day at least each week should be set aside for this purpose.

(3) Do not plant out more suckers than can be satisfactorily dealt with in such a weekly inspection.

(4) Deal at once with any affected stool as follows:—

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The High Standing and Long Experience of this Firm is a Guarantee that the Best Interests of Consignors will be conserved.

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And Sohn,
Fruit Brokers . .
and Auctioneers
(GERMANY)
Established 1863.
Largest receivers of Australian, Tasmanian, and American APPLES.
Foreign Apples a Speciality..

(a) Spray the whole stool thoroughly, as well as the surrounding soil, with Black Leaf 40, in order to kill any aphides present.

(b) Dig out the stool complete, even if only part is affected, and cut all parts of the plants into slices with a cane knife or suitable implement. (There is no necessity, nor is it advisable, to carry away such material, which can be left to die in the plantation. A very conscientious grower might well give an additional spraying to the cut-up material).

(5) We would most strongly dissuade growers from following the advice rendered by sellers of certain poisons, whose value, as advertised, consists in the fact that they kill off only those parts of a stool which have been treated. As in most cases most followers will develop the disease, this method is really aiding the distribution of the disease.

Success in fighting the disease lies in the earliest

**detection of diseased stools**

and their immediate destruction. It is appreciated that there is in many plantations a great difficulty in removing stools by digging-out, owing to the presence of boulders. In such cases it would be excusable to cut down the stools after spraying them, and then to poison each individual plant. For such poisoning, the butt of each individual plant could be treated with kerosene, until such time as a specific and cheap poison can be recommended by the Investigation Committee. Poisoning should not be reverted to unless digging-out is an impossibility.

(6) Growers should encourage their neighbours to follow the above procedure as diligently as themselves, since without such help every assistance is being rendered towards gradually transforming areas now lightly affected into heavily affected areas.

(7) As information is not yet available as to the number of generations of the aphides through which the virus can persist, and the aphides are to be found in abundance in the soil, growers cannot be recommended to plant suckers in holes from which affected stools have been removed. It is premature to make definite suggestions at this stage as to any effective means of treating such holes to the extent of ensuring safe planting in them.

(8) There are good cultural reasons why Banana plants should be set out in rows 12 feet by 12 feet, and the adoption of this method of planting should offer at least some advantage in possibly withdrawing one means of ready distribution of aphides.

**Heavily Affected Areas.**

While the Investigation Committee feels that there are ready means of keeping the disease under control in lightly affected areas, the case is otherwise in heavily affected areas.

It will be appreciated that in combating Bunchy Top, two lines of attack are suggested—

(1) Removal of the source of inoculum—namely, affected plants; and

(2) Some method of dealing with the vector or carrier—namely, the aphides.

Of these two the most satisfactory would be the complete removal of the source of inoculum, and it is because this is practicable in lightly affected areas that it is possible to suggest definite recommendations as outlined above. This is not immediately practicable in the heavily affected areas, where there are so many deserted and heavily affected plantations

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in close proximity. This condition directs attention to the

**possibilities of dealing**

with the aphides. There are certain plantations where it is alleged that control is, at least, effected by spraying with Black Leaf 40.

The Investigation Committee is not in a position to substantiate this conclusion at this stage, but final judgment on the matter should be rendered in the final report of the Investigation Committee, which should be available about the end of the present year.

A very considerable amount of time has been devoted to spraying and dusting on the experimental plots at Cobaki, but we do not look forward with great optimism to this as a practical method of control at this stage. However, final judgment is withheld for the present.

Some partial control by means of spraying would appear to be suggested in the experiments conducted by Mr. J. Marks at Terranora in 1922 with kerosene emulsion, and the experiments which are being carried out by Mr. H. Legg at Upper Burringbar with Black Leaf 40, but it cannot be emphasised too strongly that we cannot recommend this as a practical control measure in areas where the supply of virus is so readily available in deserted plantations.

While recognising that isolation may play its part, and that growers differ so much in respect of thoroughness, the Investigation Committee would at the present stage dissuade growers from planting Bananas within heavily affected areas. Further discussion of this matter must be left over to the final report, as it would be premature in the present state of our knowledge to express any further opinions in this connection.

Lastly, in view of the fact that Queensland, north of the Brisbane River (with the exception of Brookfield), has so far escaped the disease, and as along the Richmond River in New South Wales there are many localities free, or practically free, from the disease, **the transportation of suckers to any of these areas from the affected zone should be effectively prohibited.** Regulations in this connection do exist in Queensland, but no harm can accrue from emphasising the absolute necessity for the observance of the regulation.

**Resistant Stocks—Negative Results.**

It may be stated that the committee holds out little hope of any success in the attempt to secure resistant plants. A number of carefully selected plants were brought from Fiji, but most of them had to be destroyed owing to the presence of beetle borer. Eyes from some have been planted at St. Helena, but this experiment is now viewed with general interest rather than with any anticipation as to the economic possibilities. Our experience with apparently resistant plants within the affected area offers no prospects of conquering the disease along the line of resistant stock. The same criticism applies to the consideration of any variety other than the Cavendish Banana.

*(The balance of the report will be published next issue).*

# Queensland.

## ORCHARD NOTES FOR DECEMBER.

### The Coastal Districts.

THE planting of Pineapples and Bananas may be continued, taking care that the ground is properly prepared and suckers carefully selected. Keep the plantations well worked and free from weed of all kinds, especially if the season is dry.

New plantations require constant attention, in order to give young plants every chance to get a good start; if checked when young they take a long time to pull up and the fruiting period is considerably retarded (writes the Queensland "Agricultural Journal").

Small areas well worked are more profitable than large areas indifferently looked after, as the fruit they produce is of very much better quality. This is a very important matter in the case of both of these fruits, as with the great increase in the area under crop there is not likely to be a profitable market for inferior fruit.

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Established 1882
A Trial Consignment solicited from Growers in all States.
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Canners only want first-class Pines of a size that will fill a can, and cannot utilise small or inferior fruit, except in very limited quantities, and even then at a very low price.

Small, badly filled Bananas are always hard to quit, and with a well-supplied market they become unsaleable. Pineapple growers, especially those who have a quantity of the Ripley Queen variety, are warned that the sending of very immature fruit to the southern markets is most unwise, as there is no surer way of spoiling the market for the main crop. **Immature Pineapples are not fit for human consumption, and should be condemned by the health authorities of the States to which they are sent.**

Citrus orchards require constant attention; the land must be kept well worked, and all weed growth destroyed. Spraying or cyaniding for scale insects should be carried out where necessary. Spraying with fungicides should be done where the trees show the need of it. A close look-out must be kept for the first indications of "maori," and as soon as it is discovered, the trees should either be dusted with dry sulphur or sprayed with the lime-sulphur, potassium, or sodium sulphide washes. Borer should be looked for and destroyed whenever seen.

Early Grapes will be ready for cutting. Handle carefully, and get them on to the market in the best possible condition. A bunch with the bloom on and every berry perfect will always look and sell well, even on a full market, when crushed and ill-packed lines are hard to quit.

Peaches, Plums, Papaws, and Melons will be in season during the month. See that they are properly handled. Look out for fruit fly in all early ripening stone fruit, and see that none is left to lie under the trees to rot and thus breed a big crop of flies to destroy the Mango crop when it ripens.

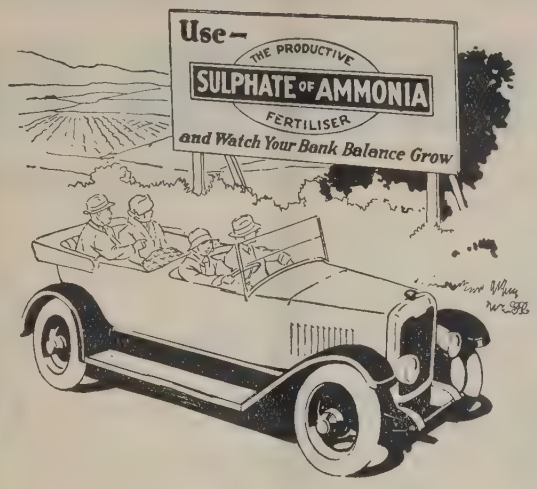
Keep leaf-eating insects of all kinds in check by spraying the plants on which they feed with arsenate of lead.

Look out for Irish blight in Potatoes and Tomatoes, and mildew on Melons and kindred plants. Use Bordeaux and Burgundy mixture for the former, and finely ground sulphur or a sulphide spray for the latter.

### The Granite Belt, Southern and Central Tablelands.

Early ripening Apples, Plums, Apricots, Peaches and Nectarines will be ready for marketing during the month. All early ripening deciduous fruits are poor carriers and bad keepers, as their flesh is soft and watery, deficient in firmness and sugar, and cannot therefore be sent to any distant market. The available markets are quickly over-supplied with this class of fruit, and a glut takes place in consequence. Merchants frequently make the serious mistake of trying to hold such fruits, in the hope of the market improving, with the result that, instead of improving, the market frequently becomes more and more congested, and held-over lines have to be sent to the tip.

There is only one way to deal with this class of fruit, and that is to clear the markets daily, no matter what




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*There's a reason—The results obtained.*

the price, and get it distributed and into consumption as rapidly as possible by means of barrowmen and hawkers.

Most early ripening fruits are useless for preserving in any way, their only value being what they will bring for consumption whilst fresh. This being so, it is only a waste of time and money to forward immature, undersized, and inferior fruit to market, as it is not wanted, and there is no sale for it. It should never have been grown, as it is frequently only an expense to the producer, besides which, unless the fallen or over-ripe fruit is regularly and systematically gathered and destroyed in the orchard, it becomes a breeding ground for fruit fly and codlin moth, as well as of fungi, such as those producing the brown and ripe rots.

Early ripening fruits should, therefore, be carefully graded for size and quality,handled,and packed with great care, and nothing but choice fruit sent to market. If this is done, a good price will be secured, but if the whole crop—good, bad, and indifferent—is rushed on to the local markets, a serious congestion is bound to take place and large quantities will go to waste.

Orchards and vineyards must be kept in a state of perfect tilth, especially if the weather is dry, so as to retain the moisture necessary for the development of the later ripening fruits. Where citrus fruits are grown, an irrigation should be given during the month if water is available for this purpose, excepting, of course, there is a good fall of rain sufficient to provide an ample supply of moisture.

Codlin moth and fruit fly must receive constant attention and be kept under control, otherwise the later-ripening fruits are likely to suffer severely from the depredations of these serious pests.

Grape vines must be carefully attended to and sprayed where necessary for black spot or downy mildew, or sulphured for oidium. Where brown rot makes its appearance, spraying with the potassium or sodium sulphide washes should be carried out. Leaf-eating insects of all kinds can be kept in check by spraying with arsenate of lead.

Vegetables will require constant attention in the Granite Belt area. Tomatoes and Potatoes will require to be carefully watched in order to prevent loss from Irish blight, and no time should be lost in spraying these crops should this disease make its appearance in any part of the district, as it can be prevented by spraying with either Bordeaux or Burgundy mixture. These fungicides effectually protect the plants to which they are applied if used in time. If leaf-eating insects, such as beetles, grasshoppers, and caterpillars, are doing damage as well, add 3 or 4 lb. of arsenate of lead to the 100 gallons of spraying mixture used for the prevention of early and late blight (Potato macrosporium and Irish blight), so that the one application will be effectual for both classes of diseases.

Keep all kinds of vegetables well worked, stirring the land frequently to retain moisture, and taking care to prevent the formation of a surface crust should rain fall. Remember that vegetables require plenty of moisture; therefore leave nothing to chance, but do your best to retain all the moisture in the soil you possibly can.

### Palmwoods.

A report from Mr. F. C. Henk, of Palmwoods, under date, November 17th, reads:—

The main fruits in this district are Citrus, Pineapples (smooth leaf), Bananas (Cavendish), and we expect a medium crop in all three.

We expect the Citrus crop will be heavier than last year, but Pineapples and Bananas will be about the same.

Regarding last season's crop, we have no record of Citrus, but there were 81,363 cases of Pineapples, and 45,842 cases of Bananas. These figures are for Palmwoods, Montville and Buderim districts.

Sole Australasian Represen tative.

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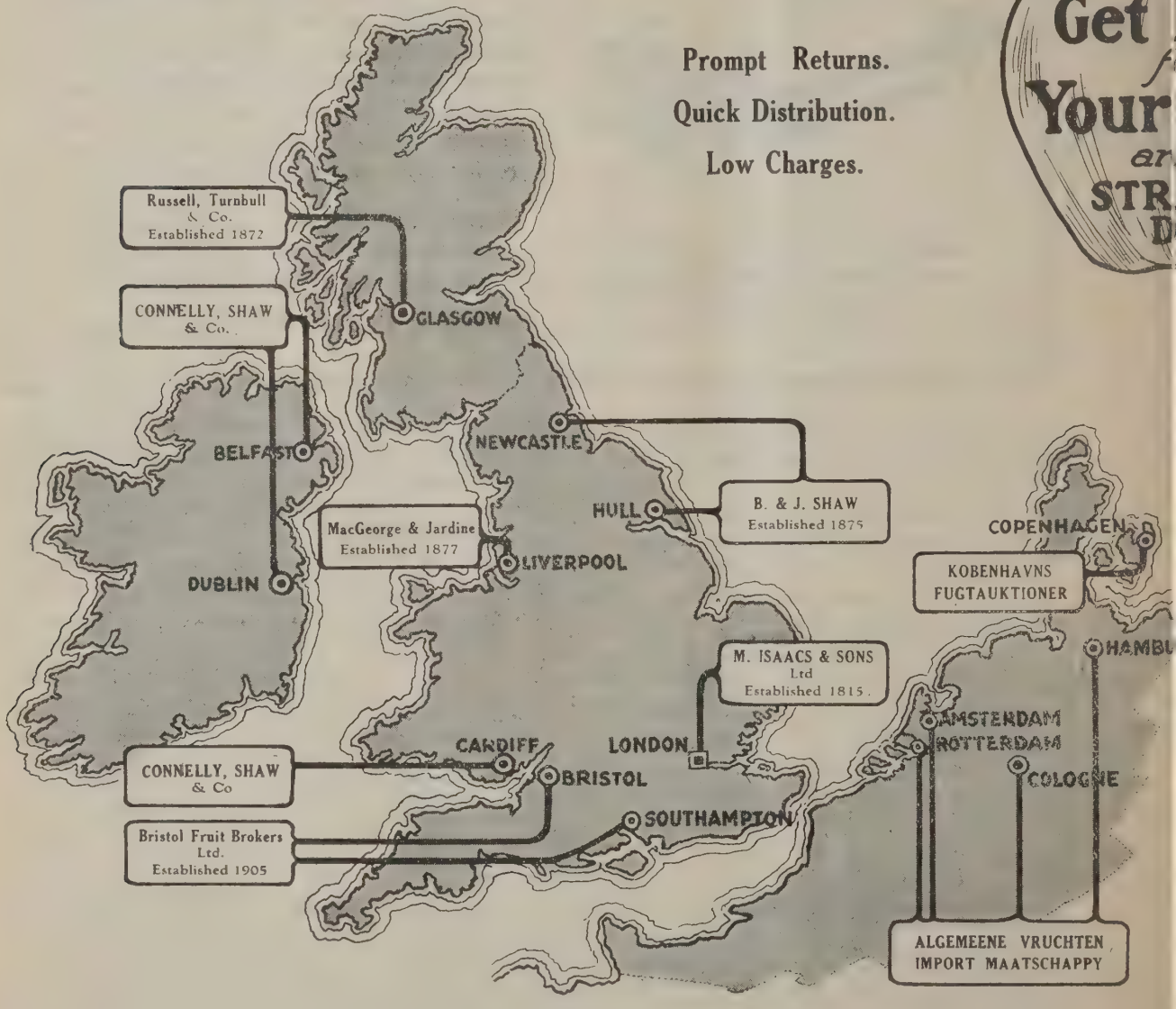
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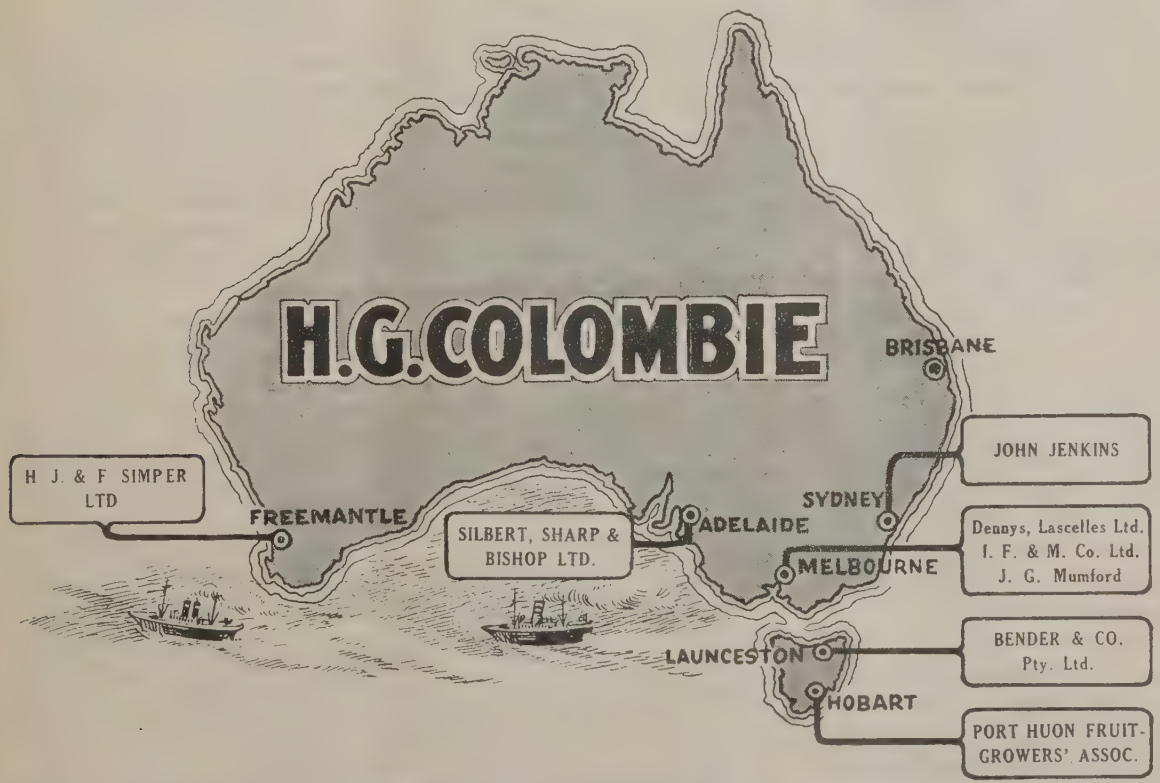
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# TASMANIA.

## Apple Crop Normal. Pears Medium. Apricots Heavy.

*(By Our Correspondent.)*

IT is now possible to give some indication of the prospects of the different fruit crops which are grown in the State.

The weather conditions around the blossoming and setting period have been much more favourable than in previous seasons, being drier, and consequently not so conducive to fungus disease.

The orchards are generally showing marked improvement in health and vigour, and owing to the better prices received for last season's crops many areas that were semi-neglected are again being brought into efficient cultivation.

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**Apples.**—The indications at present are for

**a normal crop**

of all commercial varieties, except Scarlet, Jonathan and Cleopatra. Scarlets are again fairly light in most districts, whilst Jonathan and Cleopatra are patchy, the latter variety in many cases being affected with the powdery mildew fungus, which is largely responsible for the poor setting.

In the Derwent Valley and certain districts east and north of Hobart, a very heavy frost was experienced in mid-November. This was most severe in the Bushy Park area, and the majority of the crops suffered heavily in consequence.

**Pears.**—The crop will be only a medium one. In some districts the varieties Winter Cole, Winter Nelis and Williams are very light, the trees setting scarcely any fruits. A good deal of cold weather was experienced during the blossoming period of most Pear varieties, and it is evident that this has had an effect on the setting, particularly the tender kinds.

**Apricots.**—These are generally satisfactory in most districts, and in many cases heavy crops are recorded. Where this is experienced, it will be necessary for growers to carefully thin out the fruits, especially as weather indications point to a dry season. If this is not carried out, and constant attention given to soil cultivation in order to conserve the moisture, the quality and size of the crops will be much affected and considerably militate against their disposal.

**Small Fruits.**—The plantations are generally looking healthy, and showing a good setting of berries. As the development of these fruits is largely influenced by the climatic conditions experienced during the next few weeks, the prospects cannot be ascertained with any degree of accuracy, until the end of November. This also applies to a certain extent to other fruits. At the beginning of December a detailed report will be supplied with an approximate estimate of quantities.

**Currant Borer.**—A conference was held in November between the officers of the Department of Agriculture, Fruit Board and Municipal Councils, for the purpose of considering the most effectual means of controlling the pest.

All southern districts were represented, the Hon. Minister of Agriculture and Chairman of the State Fruit Advisory Board being in attendance. An agreement was reached by which a sub-committee was formed to draw up a uniform regulation with a view to controlling the spread of the pest. At the same time the Departmental officers will carry out a series of experiments to try and find a more effectual remedy than that of cutting out infested branches.

**Damaged Fruit Consignments.**—Owing to the delay that has been occasioned in the case between Messrs. F. C. Bradley and the Federal Houlder Shire line concerning claims in respect to Apple consignments damaged in transit during the 1921 fruit season, the Tasmanian State Fruit Advisory Board is considering the position of growers who experienced heavy losses through similar causes in the following years. At a recent meeting the following resolution was unanimously agreed to, viz.:—

**That advice be sought on the question whether the growers have legal rights of having claims lodged and heard in Australia against shipping companies for the carriage of fruit under the Sea Carriage of Goods Act.**

**Overseas Export Regulations.**—This matter has been the subject of a great deal of discussion lately in all exporting States of the Commonwealth, it being generally considered that the existing Apple and Pear grades were in need of amendment to a more practical form.

At the recent Conference of Ministers of Agriculture standards were agreed upon including the desired amendments. These were subsequently submitted to the Australian Fruit Council, and fully endorsed as representing the views of Australian producers.

Fruitgrowers are now very much surprised at the action of the Minister of Customs in submitting these to the High Commissioner in London before giving effect to them. It is felt that if the Council's recommendations are to be subject to further review, in such a manner, that very little confidence is placed in their decisions. The action is all the more inexplicable in that the officers of the Customs Department should be fully cognisant that the grades that are operative in U.S.A. and Canada are in certain respects lower than those proposed, and that such, besides being more practical in their application, would facilitate the sale of fruit upon the overseas markets.

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**PROMPT RETURNS**

**Sydney Committee of Agents.**—At a recent meeting of the State Fruit Advisory Board consideration was given to the resolution passed at the Fruitgrowers' Conference requesting the Board to become the medium of

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representation between the Committee and Tasmanian fruitgrowers. After a good deal of discussion, the principle was affirmed, the following resolution being carried, viz.:—"That the State Fruit Advisory Board officially recognise the Committee of Agents."

Since this resolution has been passed, the movement has been extended to overseas markets, and following the meeting of the Australian Fruit Council, the different exporting States are being asked to submit nominations of agents for the formation of a like committee upon the overseas markets.

**Horticultural Instruction.** — The scheme submitted by the State Fruit Expert (Mr. P. H. Thomas) for the better organisation of the departmental activities in respect to instructional, experimental, and demonstration work in the various districts is being well received by the majority of fruitgrowers.

It is becoming apparent that in many instances very big savings may be effected by the employment of more effectual and economic means of handling the different problems which are confronting the producer, and that this can best be carried out by a policy of educational propaganda. A resolution was carried at a meeting of the Fruit Advisory Board recently appointing a sub-committee to consider the scheme with the object of requesting the Government to draft a Bill to give effect to the proposals for submission to the Fruitgrowers' Annual Conference.

### WEST TAMAR.

**Apples Medium, Pears Light.**

Our correspondent reports under date, Nov. 21st:—

Apples are the chief fruit grown on the Tamar, followed by Pears. The chief varieties of Apples grown are Jonathan, Sturmer, Cox's Orange, Dunn's, Five Crowns and Worcester; the first three kinds predominate, although many orchardists are gradually working over their Cox's. There are many other varieties of Apples grown, but in smaller quantities. The chief varieties of Pears grown are Winter Cole, B. Cap., Bosc, Williams, Josephine, and many others in a lesser degree.

**Apples generally promise to be medium to heavy, and Pears light;** Jonathans and Sturmers should be heavy. Dunns and F. Crowns are heavy in one orchard and light in another. Cox's are heavy in some orchards, and light in others, but generally speaking there appear to be medium. Delicious and Cleos. have good crops, and so far are clean.

Pears—Williams are fairly heavy, Winter Coles very light, Beurre Bosc medium, Josephine heavy even bearing. There are acres of Pear trees growing well, but not yet bearing.

Last year the crops were poor on the Tamar, and this year there should be no difficulty in at least doubling last year's figures. Up to the time of writing, Apples are free from Black Spot, and the foliage of the trees never looked better, although the southerly wind of last week knocked the leaves about in some exposed orchards. The very dry season may cause a large drop about Christmas, especially where orchards were left unploughed until late in the season.

### Lalla.

Mr. Frank Walker reports that the principal fruits are Apples and Pears. The setting of Apples and Pears was heavy, and they expect a heavier crop than last season; so far the Apples are free from Black Spot, but the Pears are slightly affected.

# Libellous Statements Refuted.

## OPEN LETTER TO AUSTRALIAN FRUITGROWERS

## CITY OF LONDON FRUIT BROKERS

*versus*

## THE HIGH COMMISSIONER FOR AUSTRALIA

**Monument Sale Room** (City Auction)
**Pudding Lane,**
**Eastcheap, London, E.C. 3,**
*8th October,* 1925.

Gentlemen,—

In April, 1924, we were surprised to receive a cable from our Agent in Melbourne that several Australian papers had published an extract from a report of the High Commissioner for Australia to his Prime Minister containing

**a very serious libel on us.**

It stated in effect that shipments of Oranges from Victoria had unwisely been sent to our City of London Sale Room and had there realised low prices, because Covent Garden was the established market, and that fruit sold in the City was almost unheard of, and was sold at uncompetitive prices.

**That statement was grotesquely untrue,**

for the neighbourhood of the Monument has been the recognised centre of the English trade in Oranges and Lemons for untold years. The St. Clement's Church of the old nursery rhyme, "Oranges and Lemons, says the bells of St. Clements" stands close by; Charles Dickens writes of the Orange market there in "Martin Chuzzlewit." The records of two of our firms go back over a century, and we four brokers sell of the green fruit (including also Apples, Grapes, etc., etc.) entering the Port of London in every

**year not only more than Covent Garden, but considerably more than all the other dealers in London together.**

We at once courteously approached the High Commissioner to inform him of the facts, to invite his representative to visit our sale room, and to put the matter right, but although he promised to do so, and his representative came, the rest was silence.

We were reluctantly compelled to issue a Writ against Sir Joseph Cook, not for the sake of obtaining damages, but of putting ourselves right with Australian shippers who had been misled by the report. We hoped that Sir Joseph Cook would then either correct his mistake, or seek to justify his statement, when the facts could be proved.

He did neither.

No attempt at justification whatever was made, and of course one could not have succeeded, for there was disclosed by Sir Joseph Cook himself a Report of a Departmental Committee on the Wholesale Food Markets of London, in which the City of London Sale Room was declared to be (with Covent Garden) the **chief of those markets** in the Fruit Trade, and its system of **open sale by auction** preferable to that of sale in closed sale-rooms.

There was also no apology, but instead Sir Joseph pleaded that he was privileged because of his position as High Commissioner for Australia, and he applied to the Court for a declaration to that effect. He has obtained it, with the consequent prohibition of our proceeding on all our counts against him except two very minor ones.

Judgment on Sir Joseph Cook's course of action must be left to Australians themselves, and we must be content to know that we have established that he could not deal with our challenge to prove his words. The two small issues left to us in the action are not of sufficient importance to pursue, and we propose to leave the larger jury of the Australian public to make its own finding on the merits of the case.

Yours obediently,

(Signed) JNO. & JAS. ADAM & CO.

M. ISAACS & SON LTD.

HARRY M. ISAACS, *Managing Director.*

KNILL & GRANT.

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W. GREENWOOD, *Director.*

(Advt.)

# Western Australia.

### Orchard and Vineyard Notes.

Continue cultivation.

Complete the work of thinning out Apples and Pears.

Carry on the war against fruit fly.

Take special notice of, and report at once, anything that resembles Codlin Moth or its larvae, writes Mr. Geo. W. Wickens, in the W.A. "Journal of Agriculture."

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BANKERS:
National Provincial Bank Ltd., Long Acre, London. Barclay's Bank, Henrietta Street, Covent Garden.

Spray for Orange Aphis where necessary. The heat of summer will, no doubt, have a checking influence on the pest this month, and spraying may not be necessary, but where needed, it is false economy not to apply it.

In the stone fruit districts marketing will occupy a large amount of growers' time this month. Grade to size and quality. Never mix large and small fruits, nor good and inferior fruits in the same case.

### Viticulture.

If long continued dry weather be experienced, it will tell on all growths, and especially in the case of young vines, the soil of which should be kept thoroughly pulverised and free from weeds (writes Mr. H. K. Johns). Surface cultivation of the vineyard should be kept going in order to destroy all weeds, and prevent the formation of a surface crust, which facilitates evaporation.

All the ordinary work should be completed by the end of this month.

Except in the event of rain and humid, muggy weather, sulphur dusting to be applied for Oidium.

### Bridgetown.

#### Apple Crop Light.

Mr. Godfrey Hester, of "Lilydale," Bridgetown, W.A., writes under date August 3rd:—

From the buds the fruit trees are carrying (speaking generally), there is every indication of a heavy crop for the ensuing season.

Up till this last week or ten days the season has been rather unkind to those engaged in farming pursuits all through the south west of the State, as just when we expected rain we were quite without for some six weeks. There was one advantage to the orchardist, and that was we were able to get through the whole of our spraying without a break, the weather being dry and warm, allowed the spraying to be completed without a break in most orchards.

During the past fruit season we had a very severe outbreak of San Jose Scale which was put down to the use of Lime Sulphur that had not enough sulphur dissolved in it. Many of the orchardists are using spraying oil this year, and at "Lilydale" we have used oil first spraying during July, and the second during September. The trees now are very free of Scale and Woolly Aphis, but we have a further trouble to contend with later on in the powdery mildew. This pest is spreading very quickly right through the orchards in W.A. The Rome Beauties are its favorite trees. It puts them right out of bearing if not treated with some remedy for the disease. We find Atomic Sulphur one of the best treatments for the pest.

Oct. 25th.—Since writing the above, we have had quite a change regarding our orchards. Rain has fallen off and on for the past month. The fruit trees have blossomed very eratically, especially the Jonathans. Some of the trees have been white with flowers, whilst others have made nothing but leaves, and this has occurred more or less in other varieties, and now the orchards right through the district are crawling with thrip, so it looks now as though there would be a light crop of Apples in W.A.

### Coolup.

Mr. J. N. Cox, Coolup, W.A., writes under date November 1st, 1925.—

Following upon a winter during which exceptionally frequent and severe frosts occurred, and a subsequent dry August, all fruits are showing tremendous promise. Stone fruits in particular. This is not an Apple locality, and it is almost too early to forecast Apple prospects, but the conditions so favourable to stone fruits, should secure similar response from pippins.

Vines also have burst splendidly, but the weather during the last six weeks has been adverse; sudden changes of temperature have been unfavourable, and the issue of sunshine has been quite inadequate.

Where winter spraying has been neglected, Black Spot is telling the tale. But where ordinary precautions have been observed great crops are expected.

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MURDOCH BROS., Hobart

### Fruit Marketing Bill Opposed.

Outside the dried fruit industry, growers have risen almost to a man, in opposition to the "Primary Products Marketing Bill." They resent interference with their prosperity, and will not consider the possibility of modifying the measure by amendments. "Kill it" is their cry.

### Mount Barker.

Mr. A. T. Booth reports on 21st Nov., that Jonathans, Dunns and Cleos. are the main Apple varieties; the crop is medium, and probably lighter than last season.

In the 1925 export season approximately 100,000 cases of Apples were exported from this district.

# APPLE EXPORTERS!

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J. B. MILLS & CO., 9 Queen St., Melbourne

Cable and Telegraphic Address: "MILLSCO" Melbourne

## EXPORT OF APPLES AND PEARS.

(The Editor, "The Fruit World.")

Sir,—After a profitable export season, when heads are cool, it is a fitting time to survey the ground and see what can be done to build up a profitable industry for the years to come. Various forms of Government control have been advocated, but these involve increased cost of shipping, probably a loss of efficiency, and certainly a surrender of individual liberty; and as we live in a British country and not in Russia, this kind of remedy holds out little promise of contentment to the grower.

Some pin their faith on Preferential Trade. When British steel and woollen manufactures induce Australia to abandon Protection, we may hope to induce the old country to give up Free Trade. In the meantime, we can calculate whether the proposal is likely to prove a benefit to us or a mirage. It would certainly stimulate production in all the British Dominions, but what is wanted is increased consumption, not more production. To be a lasting benefit to us, a preferential duty in favour of British-grown fruit would need to be adopted by the whole of Europe, and not merely confined to Great Britain. Otherwise the Americans would ship direct to the Continent, and the competition for our fruit in London and Hull would be materially lessened, owing to the absence of Continental buyers. The result would be a serious fall in prices, the reverberation of which would be felt in every other British market.

It is worth while in passing, to note how serious a factor this American competition has become. Before the war only trifling quantities of American fruit reached Europe during our shipping season, but now it is shipped continuously throughout the year. Last August old crop Winesaps from Washington reached Liverpool in the same boat with new crop Gravensteins from California. The latter made from 15/6 to 20/6 per case, the old crop Winesaps realising from 14/- to 18/3, while in the same market Tasmanian Sturmers brought from 8/6 to 10/6. This occurred in a season when Australian fruit landed in unusually good condition, and when the American crop was one-third under the average. American competition is a brutal fact which must be looked straight in the face, but it is all the more necessary to make sure that our defences are not illusive and even harmful,

**Another suggested remedy**

is that an officer should be appointed by growers to determine in London whether each shipment, as it arrives, should be sold there or diverted to some other market, the object being to prevent gluts in London. If Apples were wheat, this proposal would be well worth a trial, but every shipment contains fruit in all stages of maturity, and the extra handling and expense involved in sorting out the lots which are fit for further travelling would more than outweigh any possible advantage.

Other schemes of the same nature have been discussed, but my object is not so much to criticise as to point out in what direction helpful work can be done. **Our efforts should be centred upon increasing the consumption in Europe of Australasian Apples and Pears.** Mr. Lee Neil has recommended spending a fair amount on advertising, and this is certainly a wise proposal. Without any disrespect to the officials at Australia House, however, this expenditure is likely to do more good if the money is contributed to the Advertising Fund of the Federated Brokers of Great Britain, to be earmarked for Australian fruit. This Association has the necessary organisation already in existence, as well as the necessary experience. It has been spending £30,000 a year on the same kind of work, of which one-third is contributed by the brokers themselves, and the fact that Apple consumption in England has trebled during the last ten years is a striking tribute to the success of their "Eat More Fruit" campaign.

But advertising alone is not sufficient. We must also "deliver the goods," and these must be of such quality and so reliable from year to year that provincial buyers will be induced again and again to send repeat orders. It is in this connection that the Government can give real help to the industry. It is no exaggeration to say that the Victorian Government has put

**millions of pounds**

into the pockets of Australian wheat growers, by breeding new varieties which are more prolific, more resistant to diseases, and of greater food value than the old ones. What prevents the Federal Government from conferring a similar benefit on fruit growers? Where England, Canada and America spend pounds on working out horticultural problems, we spend pence. We have our own special problems, and in plenty, due to the long sea voyage as well as peculiarities of climate and soil.

Our best selling variety, Cox's Orange Pippin, is a poor shipper; the next best, Cleopatra, is too subject to black spot and bitter pit; Victorian Jonathans, which variety is the one most frequently shipped, have gone out of favour in oversea markets on account of their uncertain life; so also has the Rokewood, which is apt to develop water-core. We have no variety to compare in reliability and popular favour with the Oregon Newtown or the Wealthy, Jonathan and McIntosh Red as grown in America and Canada. Some varieties are biennial bearers, others show a greater resistance to black spot, some are bad shippers, others are too prone to spot or bitter pit. There is ample room for another William Farrar or Hugh Pye to breed new varieties which will combine all the good points and omit the bad, but practically nothing is being done in this direction. American competition is knocking at the door, and it is time that we woke up to the seriousness of our position. With the generous backing of their Government Scientific Departments, American and Canadian growers threaten, before long, to send far more fruit to England during our shipping season than we do ourselves, and—horrible dictu!—to make better prices for their stale fruit than we do for our fresh.

Apologising for the length of this letter. I am, yours faithfully,

A. G. LESTER.

C/o Dennys, Lascelles Ltd.,
Melbourne, 1/10/25.


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# Special Notice to Fruitgrowers

In response to numerous requests from growers for information as to who are members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA, the following list is given. All are members of the above Association, and are registered firms:—

**H. M. Wade & Co.**, 471 Flinders Lane, Melb.
**T. Stott & Sons**, 11 Western Market, Melb.
**F. Booth & Sons**, 15 Western Market, Melb.
**H. L. E. Lovett & Co.**, 410 Flinders Lane, Melbourne.
**A. E. Pitt**, 12 Western Market, Melbourne.
**J. Davis**, 13 Western Market, Melbourne.
**G. Woolf & Sons**, 3 Western Market, Melb.
**W. S. Tong**, 4 Western Market, Melbourne.
**Silk Bros.**, 441 Flinders Lane, Melbourne.
**J. G. Mumford**, 449 Flinders Lane, Melb.
**J. W. Ross**, 6 Western Market, Melbourne.
**W. Sweeney**, 14 Western Market, Melb.
**J. H. Young & Co. Pty. Ltd.**, 7 Western Market, Melbourne.
**D. Smith Pty. Ltd.**, 480 Flinders Lane, Melb.
**Silbert, Sharp & Davies Pty. Ltd.**, 17 Western Market, Melbourne.
**A. Millis & Sons Pty. Ltd.**, 5 Western Market, Melbourne.
**W. A. Watkins**, 62 King Street, Melbourne.
**P. A. Patrikeos**, 31 William Street, Melb.

The whole of the QUEENSLAND FRUITS sold in Victoria, is handled by members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA, under appointment by the Committee of Direction of Fruit Marketing, Brisbane, Queensland.

GROWERS PROTECT YOURSELVES by consigning to members of the WHOLESALE FRUIT MERCHANTS' ASSOCIATION OF VICTORIA.

Correspondence is invited by the Association.

J. D. FRASER, Secretary, 325 Collins Street, Melbourne.

# South Australia.

### Orchard Notes for Southern Districts.

December is usually a very busy month for orchardists. Fruit picking and packing begins in earnest. We can, and do, grow good fruit, and it should be available to consumers at reasonable prices, and be delivered to them sound and fresh. But, unfortunately, owing to faulty packing and handling, the retailer often gets the fruit bruised and unfit for sale, and therefore charges more for the fruit to make up the loss, writes Mr. Beaumont, Orchard Inspector in South Australian "Journal of Agriculture." Soft fruit should be handled in trays or punnets. Do not allow Peaches, Nectarines, or Apricots to go to waste; be ready to dry them, if necessary. Pamphlets about drying fruit can be obtained for 1½d. stamp from the Department of Agriculture, Adelaide.

Woolly Aphis and Peach Aphis must be kept in check with nicotine sprays. Borers should be watched for; a tiny piece of cotton wool dipped in petrol and pushed in the hole, and a piece of clay on top will stop the borer.

Young trees need special care now; rub off all unnecessary shoots, and keep the soil loose about them; see that the stakes are properly secured.

Young vines also need the same treatment, and must be tied to the trellis as soon as possible. If a lot of shoots have started where big limbs have been removed, rub off those not wanted; this will also apply where grating has been carried out. Cut out cleanly all dead timber, and apply some thick paint to the new cut. Citrus trees will be the better for a cleaning up.

Apples and Pears will need a coat of arsenate of lead on them always; some lime-sulphur or wettable sulphur added will help to check Black Spot. Spray for Pear and Cherry slug.

Look to your fences, and see that no openings are there for rabbits or hares; they will be ready for trees when the green grass is done. See that the birds do not get the fruit. To work 50 weeks to produce good fruit, and then allow birds to use it is not good practice.

Vines must be closely watched for downy mildew. If you have not got a pamphlet dealing with this pest, sent in for one at once to the Department, enclosing a 1½d. stamp. Bordeaux mixture is the preventive. Growers are strongly urged to make up their own spray as instructed in the pamphlet. This will also check Black Spot or anthracnose.

Commence budding.

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Arsenate of Lead
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1 lb. of Green Cross Powder is equal to from 2 to 3 lb. of the best Arsenate of Lead Paste.
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50 lb. „ . . . . 1/9½ „ „
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## CROP PROSPECTS.

### Balhannah.

### Medium Crop Expected.

Mr. H. N. Wicks writes, 18/11/25:

Fruits mostly grown here are Apples, Pears and Plums. Chief varieties of Apples—Jonathan, Rome, Rokewood, Stone Pippin, Statesman. Pears, chiefly Duchesse.

The early blooming varieties of Apples seem to have set a good crop, but according to reports, some of the late blooming sorts have shed their fruit badly, bringing them down to a below medium crop in a number of cases. Jonathan from fair to heavy, other varieties fair to good, with some varieties, such as Londons, almost a failure in some instances.

In most orchards the prospects are very much brighter for a crop than was the case last season. The fruit is remarkably free from spot this season so far.

Pears are reported to be from fair to heavy, while Plums are medium in this district.

In my own particular case the French Prunes have set the heaviest crop they have ever carried.

### Marion.

Mr. Geo. Western, Muscatel vineyard, Marion, South Australia, reports (18/11/25) that their main fruits are Apricots—Newcastle, Oullins, and Moorpark. Peaches—All table varieties and Pullar clings. Plums—Santa Rosa and Burbank. Grapes, for table purposes—Muscatels (very largely grown), Red Prince, Black Malaga, for wine and distillery, Doradillo, Grenache, Pedro, etc. Almonds are also grown.

**Crop Anticipations.**—Apricots, very light. Peaches (table), medium; canning, light. Plums, medium. Grapes, heavy to all present appearances.

As compared with last season, Apricots and Peaches will be lighter, Grapes and Almonds heavier.

Tomato growers are doing well this season: they have fairly good crops, and have received good prices up to date.

### Nuriootpa.

Mr. A. B. Robin reports on the 18th November, as follows:—

The principal fruits grown in this district are:—Apples—Mostly Cleos.; next in importance are Dunn's, Rome Beauty, Jonathan. Pears—Williams (for canning), Glou Morceau. Apricots—Moorpark. Peaches—Elberta and Salwey; these are gradually being replaced by better canning varieties, such as Phillips', Goodman's Choice, Eureka, etc. Plums—Golden Drop, Jefferson. Prunes—D'Agen, Robe, Splendour and Sugar.

The present crop prospects are:—Apples, heavy. Pears—Williams (medium), late kinds light. Peaches—Light. Apricots—Medium (patchy). Prunes and Plums—Light to very light.

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The fruit crop will be lighter than that of last year, when heavy crops of Apricots, Prunes and Pears were obtained. The sample should be of first-rate quality, as the trees are so far remarkably free from all disease. This is, no doubt, the result of a dry cold winter, absence of muggy conditions in the spring, and greater care in spraying.

### Paradise.

Mr. J. Donaldson, of Paradise, S. Australia, writes under date, 13/11/25:—

The main fruits here are Oranges, Lemons, Peaches, Apricots, Nectarines, Plums.

### Crop Anticipations.

**Apricots** for canning purposes are very light, and the local market can absorb the lot.

**Peaches.** — Medium crop, on the whole.

**Pears.**—Fair crop, with good enquiry for canning.

**Plums.**—Fair crop, about the same quantity as last year. We expect to export 10,000 trays this season.

On the whole the crop is **much lighter than last season,** and we should have no difficulty in handling it profitably.

### Renmark.

Mr. O. Weste, of Renmark, South Australia, writes under date, Nov. 24th:—

The principal fruits grown in this area are Sultanas, Currants, Gordos, Doradillos, Pears, Apricots, Peaches, Nectarines.

**Crop Anticipations.**—Sultanas (medium to light), Currants (heavy), Gordos (heavy), Doradillo (heavy), Pears (medium). All stone fruits light.

With the exception of stone fruits, all prospects are better than last year.

The acreage under cultivation in the Renmark area is about 10,000 acres.

That some Sultanas should be light and not expected to return above 50 or 60 per cent. of last year's crop, and on other vineyards there is a heavy crop showing, leads growers to look for some reason outside climatic conditions.

Experiments carried out by Mr. Olorenshaw in the matter of **pruning** and the proper selection of wood for canes, shows what can be done to increase yields in otherwise patchy vineyards.

**By selecting canes**

only which have previously borne fruit and leaving not more than four or five canes to a vine; by clearing vines of watershoots early in the growing

period (thus allowing all the energy of the vine to be given to the maturing of the fruit), I have increased the yield on my own vineyard, and many others who carefully selected fruit bearing wood, have gradually brought up their yield year by year.

In this way there is a far more uniform crop, and no great discrepancy between a good year and one which is considered an "off" year by those who do not prune carefully.

Dormant buds are a big feature on many Sultana blocks this year. This I attribute principally to leaving too many rods. Where a vine carries no more than four or five rods every bud has burst, whereas vines carrying 8, 10 to 12 rods have long spaces of dormant buds.

The item of greatest interest to men in the dried fruits production at present is the

**cold potash dipping**

method as against the old hot caustic soda dip.

Prices realised by cold dipped fruit sent to England, leaves **no shadow of doubt that, given care, the cold dip has come to stay, and amply repays individuals for the little extra work entailed by this process.**

Mr. Lyon (who is in charge of the Merbein Experimental Orchard) made exhaustive experiments last year, and obtained good results, as a consequence of which the Dried Fruits' Association, in conjunction with the Agricultural Bureau, are getting him to give a demonstration in Renmark late in February, and I believe pamphlets are being prepared giving instruction to prospective users of this method.

Major Howard Tolley recently gave a paper before the Agricultural Bureau, Renmark, on the need for

**more scientific instruction**

on the River areas. In his capacity as a member of the Royal Commission to enquire into Repatriation matters on the River, he found the need of greater scientific instruction to growers on River areas. There are a great many problems confronting settlers, which need scientific investigation, and only by grappling with these problems in the laboratory can we hope successfully to overcome them and place the industry on a sound footing.

## ARGENTINE PROHIBITS AUSTRALIAN AND NEW ZEALAND FRUIT.

### Absurd Regulations.

We have received from the Department of Markets and Migration, a copy of the decree prohibiting the importation into the Argentine Republic of fresh fruits and vegetables from regions in which the fruit fly (ceratitis capitata) exists. The prohibition includes Peru, Brazil, Australia, New Zealand, South Africa, Cuba, Spain and Italy. From the countries mentioned, the importation of the following fruits only will be permitted: Lemons, Cocoanuts, Pineapples and Bananas. * * *

It is astounding that New Zealand should be included amongst the countries in which the fruit fly exists, as it is quite certain there is no fruit fly there.

The fruit fly certainly exists in "Australia," but Australia is a big place. There is no fruit fly in Victoria, Tasmania or South Australia. For the purpose of handling fruit supplies, other countries recognise certain States in U.S.A. as clean. Thus, if a State in U.S.A. were free of a particular disease or pest, that State could continue to supply fruit


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VICTORIA.—F. W. VEAR, 49 William Street, Melbourne.
SOUTH AUSTRALIA.—GARDENERS' SUPPLY STORES CO-OPERATIVE SOCIETY LTD., New Market, Grenfell Street, Adelaide.
TASMANIA.—THE PORT HUON FRUITGROWERS' CO-OPERATIVE ASSOCIATION LTD., Hobart.

even though the particular disease or pest existed in U.S.A., speaking of the country as a whole.

It is to be hoped that the responsible authorities in the Argentine Republic will free the three Australian States in which the fruit fly does not exist, from the stigma of the prohibition, and certainly that New Zealand be at once declared clean.

**LATER.**

Advices to hand indicate that the Argentine Republic will permit the importation of Apples from New Zealand, **but only till December 31st, 1925.**

* * *

The foregoing concession is, of course, ridiculous. The 1925 Apple crop has passed into commerce; the only time New Zealand could ship Apples to South America would be in their ordinary export season, and before any of the varieties were cool stored. Surely the responsible authorities in Buenos Aires will see that they are making a mistake in prohibiting, on scientific grounds, clean fruit from a clean country.


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## APPLE CROPS ABROAD.

### Interesting News and Notes.

### Canada.

**Apples.**—The Canadian commercial Apple crop is now estimated at 103 per cent. of 1924, or 2,950,335 barrels, and 75 per cent. of a five-year average. All provinces show a decrease except Ontario, where there is an increase of approximately one-half million barrels. The greatest decrease is reported from Nova Scotia, with over 276,000 barrels less than last year.

The Apple crop in England and Continental Europe is below average. These conditions point to a steady outlet for Canadian Apples on the export markets, and, providing there are no industrial disturbances, the demand should be good with orderly marketing.

With the crop in Nova Scotia considerably below average, and the Virginias, the principal exporting barrel States, with only 50 per cent. of a crop, it is expected Ontario will resume its former position of an exporting province.

### British Columbia.

A recent survey of British Columbia's commercial Apple crop conditions show the crop to be better than anticipated earlier in the season, and is estimated at 2,318,138 boxes.

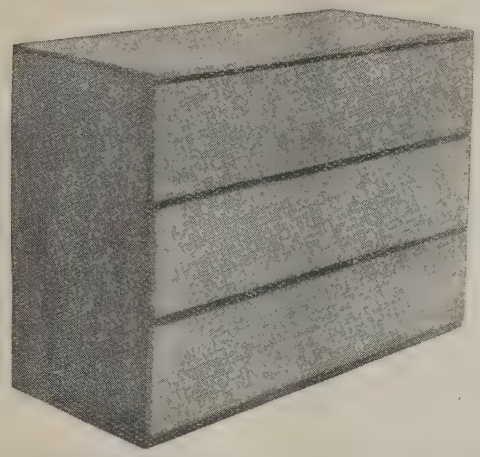
### United Kingdom.

According to a recent report issued by the British Ministry of Agriculture, Apples have improved with recent rains, and are of good size, but crop is variable, and in the main below average. In Kent, crops are average; in the Eastern counties about 15 per cent. below average, though dessert varieties in Norfolk and culinary varieties in Essex are above average. Among dessert varieties, Worcester Pearmain, James Grieve and Allington are generally good; Blenheim and Cox's Orange Pippin reported very good.

### United States.

**Apples.**—According to the United States Department of Agriculture, the commercial Apple crop will exceed the 1924 production by more than 1,800,000 barrels. The forecast is for 30,394,000 barrels, as compared with 28,587,000 in 1924.

[The above report was received by the State Fruit Expert (Mr. P. H. Thomas) from the various Departments of Agriculture in respect to the fruit crop prospects, at the end of October in the various centres of production.]



Australian Apple and Citrus Dump Bushel Case.

# SOFTWOOD CASES

(IMPORTED)

*Cheaper than hardwood if exported.*

*Cut to Australian Standard Sizes*

**DUMP BUSHEL** with one piece top and three equal piece side

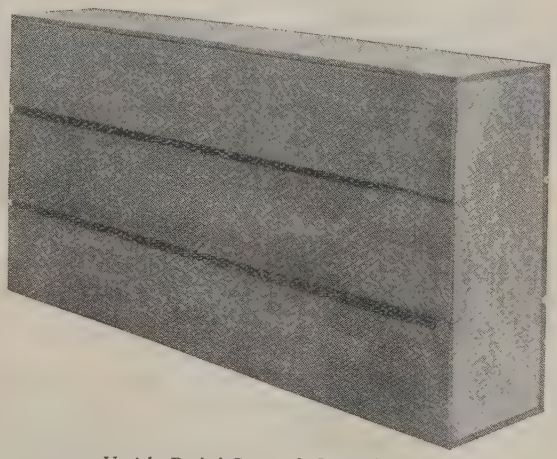
**UPRIGHT BUSHEL** with one piece top and three equal piece side

**DRIED FRUIT CASE** with one piece side and two equal pieces tops and bottoms

**CANNED FRUIT** with one piece side and two piece tops and bottoms

## SOME ADVANTAGES IN FAVOR OF IMPORTED CASES

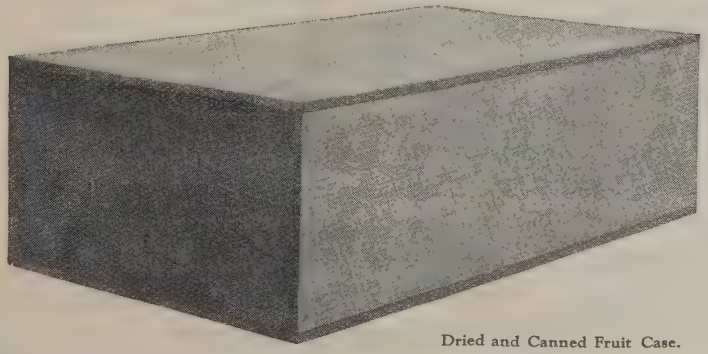
(1) *Full drawback of duty allowed on all cases exported*
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## Answers to Correspondent.

**Shyness of Stayman Winesap.**—"E.M.H.," Batlow, N.S.W., writes (14/11/25) asking for an opinion as to the apparent shyness of Stayman Winesap Apple. He continues:—"My trees are eleven years old, and are interplanted with Jonathans, and the blossoming periods of both synchronise very well. The trees are large and making vigorous growth, blossoming for the past three years moderately heavy; the setting, however, being disappointing. On the other hand, there is a tree of rather stunted appearance amongst them, which has been almost broken down with the weight of fruit. Would I be justified in assuming that the trees merely require age to settle down, or are they naturally shy bearers?"

**Answer** (by John Brunning and Sons, Fruitgrowers and Nurserymen, Somerville, Vic.).—"E.M.H." mentions that the Stayman Winesap Apples are inter-planted with Jonathan. In the case of the Jonathan, this Apple is not a self-fertilising variety, therefore the blossoms will not pollinate the Stayman Winesaps. It will require a self-fertilising Apple to be planted among the Stayman Winesaps—and for this purpose we strongly recommend Rymer, as this is one of the best self-setting Apples known. We would advise "E.M.H." to procure Rymer trees, and plant in among the Winesaps.

To make the Rymers bloom a couple of years after planting, we would advise that they be not pruned, as they are required **only for fertilising purposes**, then as **soon as the Apples** have set, cut all the fruit off the Rymers, so that they would bloom each year, otherwise they would blossom and bear fruit every second year.

Whilst we recommend the Rymers as the best for this purpose, the following varieties would also do—Reinette du Canada, Chandler, Sturmer, Yates and Alfriston.

**Answer** (by G. W. Peart, C. J. Goodman's Nurseries, Bairnsdale).—The Stayman's Winesap is not a shy bearer, but being a very vigorous grower, can easily be over-pruned. I would think that the 11-year-old trees at Batlow have been pruned too hard, thus resulting in the vigorous growth mentioned. Prune lightly next time, and I feel sure a very heavy crop will result. Stayman's Winesap is naturally an early and heavy bearer, a 6-year-old tree yielding one bushel of fruit as a rule.

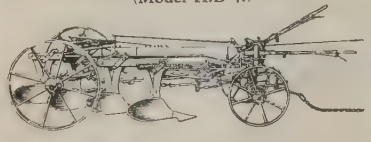

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WASTE TIME and NEEDLESS STOPS

**"Harvey" Power Lift Tractor Drawn Implements are always ready & simple to operate**
**Made in sizes from 2 to 7 Furrows.**

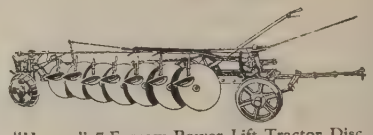


The Ideal Implement for Cane Field "Harvey" 4-Furrow Power Lift Tractor Plow (Model H.D 4.)

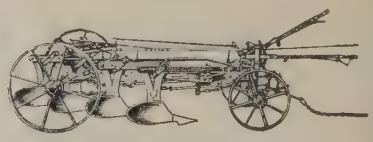


"Harvey" 7-Furrow Shortboard Tractor Plow, fitted with D Steel Shares and Circular Coulters. (Model D2).

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STUMP-JUMP
POWER-LIFT
TRACTOR
- PLOWS -
are
Made in Sizes of 3-7 Furrows
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"Harvey" 7-Furrow Power Lift Tractor Disc Plow (Model H.D4.)



"Harvey" 4-Furrow Stump-Jump Short-board Tractor Plow. (Model S.J21).

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*Show Room:* F. R. Mellor, 440 Elizabeth St., Melbourne

**SUBSCRIBERS' PAYMENTS RECEIVED.**

The following are the subscriptions received from September 1st to October 30th, 1925.

If any reader wishes to have a receipt, we will forward same on receipt of further word.

Aust. Dried Fruits Assoc., Melb. (June, '26), F. Adamson (June, '26), J. W. Aspinall (June, '26), Aust. Co-op. Wholesale Fed. Ltd. (June, '26), Wm. Anker (June, '26), Adelaide Chemical & Fertiliser Co. (June, '26), W. R. Alderson (Dec., '25), M. T. Amos (June, '26), H. Attwood (June, '26), A. H. Barry (June, '26), E. Buxton (June, '26), W. Blackburn (June, '26), Bender & Co. (June, '26), C. Batchelor (June, '26), G. Brown (June, '26), H. K. Brooke (June, '26), P. Beecroft & Co. (June, '26), A. T. Booth (June, '26), C. J. Beavis (June, '25), G. Beverley (June, '26), A. W. Bowen & Co. (June, '26), A. Boatwright (June, '26), N. Brookman (June, '26), S. B. Barker (Dec., '25), Co-op. Fruitgrowers' of Otago Ltd., (June, '26), Chateau Mildura, and Olivewood Pty. Ltd. (June, '26), D. V. Chapman (June, '26), A. J. Clark (June, '25), P. J. Clark (June, '26), W. B. Chaffey (June, '26), A. Cox (Sept., '25), F. Copley (June, '25), S. P. Calder (August, '25), J. Campbell (June, '26), L. S. Cuzens (August., '25), A. Copeland (June, '26), W. J. Collins (June, '26), Clarence Pt. Co-op. Orchard Pty. Ltd. (June, '27), A. Dunstan (June, '25), G. Duffell (June, '26), L. M. Dicey (June, '26), Hon. A. A. Davey, M.L.C. (June, '26), O. E. Dehnet (June, '27), Robt. Dowker (Sept., '26), H. R. Duncan (June, '26), F. G. Duncan (Sept., '27), L. Dreyer (June, '26), E. A. Everett (June, '26), H. F. Edwards (June, '26), C. W. Ernam (June, '26), H. E. Ewins (June, '26), J. S. Eales (June, '26). Sir J. G. Fraser, C.M.G. (August, '26). Fillsell Bros. (June, '27), R. G. Fowler (August, '26), Farquhar Bros. (June, '27), E. C. Fankhauser (June, '25), W. J. Foster (June, '26) A. P. Fankhauser (June, '26), W. F. Ford (June, '26), F. Finlay (June, '26), F. R. Finn (June, '26), Wm. Fitzsimmons (June, '26), Henry Franks & Co. (June, '26), G. Fankhauser (June, '26), Henry Gillam (June, '26), Gerrard Wire Tying Machines Co., Sydney (June, '26), S. H. Green (June, '26), R. H. Green (June, '25), George Bros. (August, '25), W. M. Gillard (June, '26), H. Gaynor (June, '26), E. N. Gamble (June, '26), R. Gregson (June, '26), L. A. Harris (Sept., '26), F. Hodges (June, '26), A. Hochkins (June, '26), H. W. Hine (June, '26), R. E. Harrop (June, '26), G. A. Hunter (August, '26), C. W. Howard (June, '25), P. Hone (June, '25), G. W. Hester & Sons (June, '26), B. G. Hall (June, '26), H. K. Heddle (June, '26), G. M. Heddle (June, '25), E. D. Harrison (June, '25), B. H. Ilett (May, '26), W. A. Irvine (June, '26), L. H. Iredale (June, '26), A. Jaboor (June, '26), A. N. Jones (June, '26), J. Johnson (Oct., '26), L. H. Jeffrey (June, '26), J. B. Krieg (May, '26), Estate of the late J. H. Knappstein (June, '26), J. Kibbey (July, '25), Kenmore Mental Hospital (June, '26). F. Lloyd (Sept., '26), E. J. Lawford (June, '26), E. G. R. Ludewigs (June, '26), J. Longton (June, '26), M. Lewis (June, '26), T. A. Lornie (June, '26), J. B. Lennan (June, '25), T. H. Latch (June, '26), F. G. Morgan (June, '26), D. Martin (June, '25), W. Merchant (June, '25), J. Morgan (June, '25), Geo. E. Miers (June, '26), H. M. Moulden (June, '27), Major E. Mayfield (August, '25), J. Martin (June, '26), P. Millar (June, '26), A. McCully (June, '26), McFarlane & Co. (June, '26), I. M. McPherson (June, '26), O. Nobelius (June, '26), H. E. Napier (June, '26), G.


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## EXPORT OF FRESH FRUIT TO INDIA.

### Prospects Unfavorable.

The Director-General, Commercial Intelligence and Statistics, Calcutta, India, in a letter to an Australian correspondent, a copy of which has been received by the Department of Markets and Migration, stated that the question of an increased market in India for Australian fresh fruits has at several times been examined in his department, and that the prospects of an increased market do not appear to be particularly favourable. Some of the reasons for this are—The high prices of Australian fruits; the lack generally, except at Bombay, of adequate cold storage accommodation, together with the fact that distribution is rendered extremely difficult by the rapidity with which fruit sent in cold storage becomes pulpy; and the increasing supplies of fruit from Kulu and the Punjab. At the same time, if it is found possible to overcome cold storage difficulties, it is not impossible that the market for Australian fresh fruits in India might be increased, provided a regular supply at lower prices were ensured during the time when the indigenous fruits are not in season.

# Poultry Notes

### Hints for December.

TO prevent catarrh, roup, and chicken pox, avoid crowding, and see that good hygienic methods are adopted. Disinfectants have their place, but prevention is better than cure: poultry farmers should aim at raising strong birds.

As regards growing birds, there are only two ways to prevent crowding; these are to house in small numbers, preferably 50 to each house, and to place the perches at least 20 inches apart, writes Mr. J. Hadlington, Poultry Expert, in the N.S.W. "Agricultural Gazette." Open-fronted houses, 12 feet x 6 feet, are a good size for 50 half-to-full-grown birds, such houses to be multiplied by the number of stock to be accommodated. The pullets should remain in these until full-grown.

It is a great mistake to have the perches not more than 12 to 15 inches apart. In such houses the birds are packed at night in a mass (head-to-tail and vice versa). One can imagine what this means on a hot night, especially where the house is not too well ventilated. Open-fronted houses are not sufficiently ventilated without a good aperture at the back. Overheated pullets or hens are liable to moult prematurely. The hot months of January, February and March are months in which eggs always make high prices. The motto should be "keep the hen cool."

Close roosts are an incentive to cannibalism and feather picking.

There is little or nothing to be gained by suspending perches, but where they are so constructed, they should be made fairly rigid, so that the birds can be at rest instead of swinging with every movement of a few restless ones.

### Early Maturity—Small Eggs.

It is not desirable that pullets should lay too early: those which lay at four and half to five months old have matured too quickly, which is undesirable. Maturity and growth are not synonymous terms. It is desirable to have quick growth, which means building up the bird before it becomes productive, while quick maturity, not accompanied by adequate growth, means small birds and small eggs.

The causes leading up to quick maturity might be stated as (1) faulty breeding (that is to say, breeding from birds of the class referred to perhaps intensified by too close inbreeding), (2) feeding a too-narrow ration during the growing period, and (3) any check to development during the rearing stage, due to, say, faulty brooding or any circumstances that retard growth.

To improve the "small" egg problem we must eliminate the faults enumerated:—(1) by selecting only well-developed foundation stock strong in the points desired, (2) by feeding a rather wider ration, and (3) by securing the best possible growth in the chicken right from the shell. To permanently improve the size of the egg, it is not sufficient to introduce a male bird bred from hens laying good eggs. Only a temporary improvement is then possible, unless all the other factors are also attended to.

Once pullets have started to lay, no change of food or quarters should be made during the autumn and winter months. Change from one class of food to another, even though it might be regarded as an improvement (such, for instance, as the introduction of oil cakes, linseed meal, etc., where they have not previously been fed), should be made very gradually, almost imperceptibly. Again, change from wet to dry mash, or vice versa, is certain to interfere with the normal laying of pullets.

It is also undesirable to have dry mash before the pullets all day where they are fed with wet mash for the morning meal. This practice is another fallacy that is creeping into the feeding of poultry. While allowing that there are arguments in favour of both wet and dry mash systems of feeding, the combination is not a good one, owing to the fact that the birds are continually more or less surfeited with food. The saving feature of straight out dry mash feeding is that it is not sufficiently palatable to entice the birds to eat too much. Regularity in feeding is almost as important as the class of food itself.

## AUSTRALIAN FRUIT EXPORTS

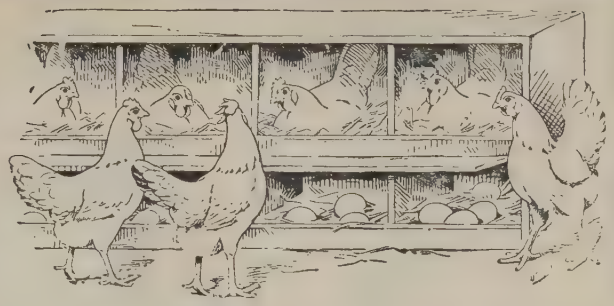
### Comment from London.

"There were two outstanding features in the fruit trade last season," states Messrs. Keeling and White Ltd., of Monument Buildings, London, through their Victorian agents, Messrs. Parnham Pty. Ltd., Melbourne.

"(1) The remarkable efficiency of the 'Eat More Fruit' campaign, which was highly beneficial to all interested in the fruit trade. In spite of unemployment and the quiet state of other trades, the general level of prices for fruit was maintained. (2) The big success of the Monument Auction Market in London as an Apple centre."

Catalogues are submitted revealing satisfactory prices from 1st January to 30th June of this year.

# "Karswood" POULTRY SPICE Helps Fowls Through the Moult



THE testimonial below is typical of the many received. There must be some outstanding virtue in a product which has the enthusiastic support of poultry-raisers and "Backyarders," under all sorts of conditions, throughout Australia. "Karswood" Poultry Spice (which contains ground insects) has gained its reputation because it merely assists nature to do her work. Fowls, like humans, are often very prodigal of nature's gifts, and as is always the case sooner or later a stop has to be called. "Karswood," containing among other valuable tonic properties, assimilable phosphorous, supplies that which nature stipulates a fowl should have to permit of regular laying and the best of health. The cost is a mere bagatelle, being one half-penny a day for 12 birds (one 2/- packet contains sufficient for 16 fowls for 32 days).

"I hope I shall now be able to forward more consignments, as I find Karswood Poultry Spice assists the fowls through their moult, and brings them on laying much quicker.

"I am sorry I was short of this Spice last month, but I hope to keep it up to them in future.

(Signed) C. E. CARTER,
Rockford Road, Tahmore, N.S.W."

* * * *

**SPLENDID RESULTS.**

"It gives me much pleasure in relating to you the wonderful results I have obtained in using 'Karswood' Poultry Spice. My friend, Mr. Robinson, advised me to try it six weeks ago, he having used it with splendid results, so I sent straight away for a packet, and in the first week I could see the difference in my hens. I might tell you they were hanging in the moult, but after a fortnight of 'KARSWOOD' they had completed the moult and had actually started laying, and, thanks to the Spice, they have been 'going strong' ever since. I have been telling my friends about 'Karswood' Poultry Spice and its results, but one or two doubted my word, so I brought them down and showed them my Rhode Island Red pullets, and the eggs I was getting, and I can tell you they altered their tune. They have some the same age as mine, and they are not laying, yet, so they now intend to give 'Karswood' a trial. (Signed) H. J. BRADLEY,
46 Charles Street, Forrestville, S.A."

**MAKE THIS TEST.**

Go to your local Grocer, Storekeeper, or Produce Dealer. Get a 1/- packet of Karswood Poultry Spice, give it to half-a-dozen of your birds in accordance with the directions on the packet. Do not expect immediate results. Karswood works naturally, not suddenly. It takes at least a fortnight or three weeks to produce results, but they are good and sure.

**NOTE THE ECONOMY.**

1/- packet supplies 20 hens for 16 days.
2/- packet supplies 20 hens for 32 days.
13/- (7lb. tin) supplies 140 hens for 32 days.

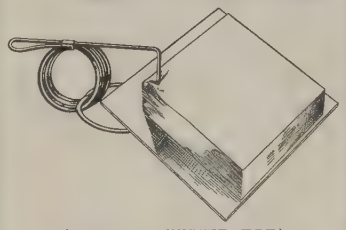
**SUPPLIES.**

"Karswood" Poultry Spice is obtainable from all Stores and Poultry Food Suppliers at the following standardised prices:—

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| ½ lb. packet . . . . . | **Price, 1/-** |
| 1 lb packet . . . . . | **Price, 2/-** |
| 7 lb. tin . . . . . | **Price, 13/-** |
| 14 lb. tin . . . . . | **Price, 25/-** |
| 28 lb. tin . . . . . | **Price, 48/-** |

*If your local dealer cannot supply you, write direct to Messrs. Henry Berry & Co. Pty. Ltd. 380 Collins St., Melbourne, adding postage (6d. on half-pound packets and 9d. on one-pound packets)—to the above prices.*

# The "CROFT" Paper Holder



(PATENT APPLIED FOR)

**FILLS A LONG-FELT WANT**

Securely holds Wrapping Paper, and is self adjusting, as the sheets are removed.

This was recently invented by Mr. Arthur Croft, Engineer of the Harcourt Cool Stores. That it is a valuable aid to the fruit packer is proved by the large number of growers in the district who are now using it.

**Price, 5/6. Postage 4d.**

**Agents Wanted in All States**

**F. R. MELLOR**

**440 ELIZABETH ST., MELBOURNE**


## CODLIN MOTH CONTROL.

It is during November and December that the heavy emergence of codlin moths from the carry-over grubs from the last season generally occurs in the tableland districts of New South Wales (states the Department of Agriculture), and the spraying of Apple and Pear trees with lead arsenate will require constant attention.

The next step is to kill the offspring before they have damaged the fruit, or at any rate before the grubs change to moths and commence egg-laying.

In orchards where the pest has been allowed to obtain a good hold, spraying alone cannot be relied upon. The most effective method is to hand-pick the trees as soon as the first of the tiny grubs start to eat their way into the young fruit. This generally occurs during December in our tableland districts. As some of the carry-over grubs hang fire, the emergence is spread over a varying period, and this necessitates hand-picking more than once. This is, of course, an expensive job, but if it is done thoroughly and the pickings are boiled up every night, the moth will cause very little worry towards the end of the season. There is no method that will give quicker results in cleaning up a badly-infested orchard.

Some infested fruit, of course, will escape even the most careful hand-picking, and bandages should be used for those grubs that eat their way through and leave the fruit. These bandages should be examined once a week and the grubs killed, care being taken that no grubs are missed which fall to the ground when removing the bandage, or which are attached to the bark instead of the bandage.

### Woolly Aphis.

During the last few weeks these insects have been exceedingly numerous in many orchards. It is advisable to spray at once with nicotine sulphate and red oil.

To prepare sufficient mixture to treat 100 trees, 1 lb. soap should be boiled in a gallon of water till dissolved; add 1 gallon of red oil and mix thoroughly; then add 1 pint of nicotine sulphate, and after mixing the whole for a few minutes, add 80 gallons of water. If the water is hard, a small piece of washing soda should be added.

The whole tree should be treated and the spray applied with sufficient force to reach insects in crevices.


# Apple Exports to all Parts of the World

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Can handle your fruit to the best advantage, for the following reasons:—

1. Direct representation in all leading oversea ports, both in the U.K. and the Continent.
2. Growers have the choice of markets.
3. All oversea representatives are pioneers in the overseas fruit trade.
4. Every consignment of fruit is sold on its merits, and returns made promptly.
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**Algemeene Vruchten Import Maatschappy.**

**COPENHAGEN.**
**Kohenhams, Fugtanktiones.**

**Wider Distribution means Better Prices and Greater Production.**

**Consign Your Fruit For Sale in Local Markets to**

# J. G. MUMFORD

**Fruit Exchange,**

## 449-451 FLINDERS LANE MELBOURNE

Branches at—

**WESTERN MARKETS & VICTORIA MARKETS.**

We supply all classes of

**ORCHARD REQUISITES,**

including

Apple Wrapping Paper, White Case Lining Paper, Woodwool, Corrugated Strawboard for tops and bottom of cases, Nails, Paper, Stencils, New Cases (in shooks or made up), Second-hand Cases.

Agents for

**LIGHTNING FRUIT GRADER,**

**BAVE-U MOTOR SPRAY PUMPS AND ENGINES.**

It has been usual to recommend the spraying of this compound in the winter.

The Government Entomologist (Mr. C. French Jr.), now advises that in tests at Pakenham, the oil and nicotine spray has been used quite successfully in mid-November, there being no burning of the tender foliage, the mixture successfully cleaning up the affected trees.

The Aphelinus parasites should be liberated in infested orchards.

## SHOWS TO COME.

1926.

Somerville .. .. .. .. .. .. ..March 19

Garden Week, Melbourne, April 13 to 17.

## BERRY BASKETS.

### Clean, Attractive Containers Enhance Fruit Values.

That the value of soft fruits in neat clean veneer containers is enhanced has been amply demonstrated in other parts of the world, as well as in Australia.

Strawberries, Loganberries, Currants, etc., are sold in this way: Why not Apricots, Cherries, Peaches, and other such fruits? In retail shops the beauty of the fruit is enhanced by various types of baskets holding one lb., and from 4 to 8 lbs. Instead of folk having to carry away soft fruits in paper bags, they should be handed the whole of their purchase in a nice basket, complete with handle. People like this hygienic method. The baskets are very cheaply made, and the cost can be easily absorbed in the price of the contents.

Retail shopkeepers who have adopted this neat, clean, and orderly method report that their business is steadily increasing.

Fruitgrowers and their organisations are invited to look closely into this important matter. The Australian Berry Baskets Company, 395 Collins-street, Melbourne, will gladly furnish all particulars.

**Raspberries, Loganberries & Light-colored Cherries**

**Fruit received through Christmas and New Year Holidays.**

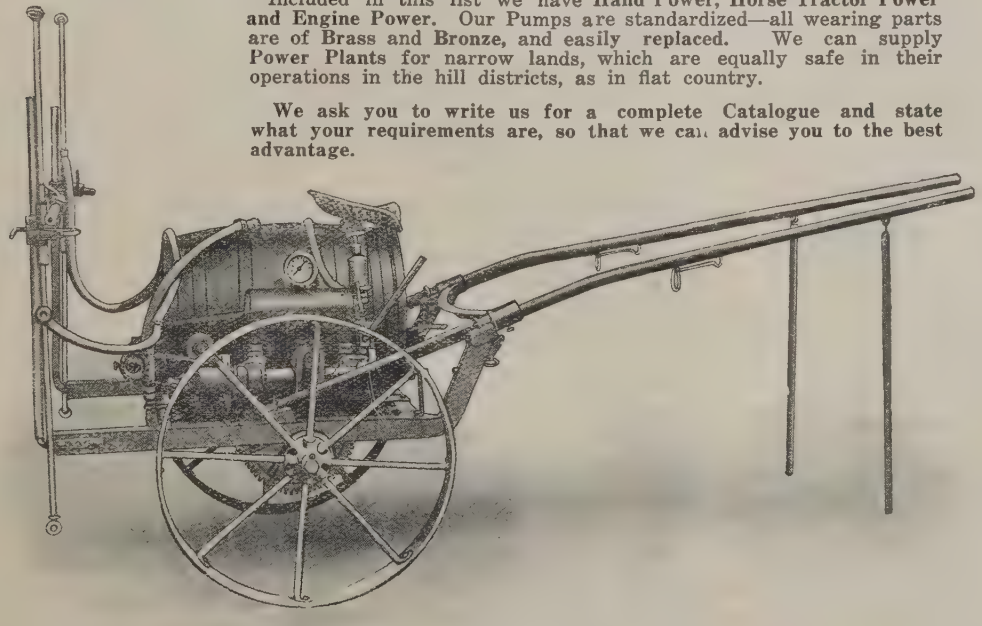
**C. M. BROOKE & SONS**
73 Whiteman St., South Melbourne, Vic.

METTERS NUFREND SPRAYING OUTFITS

We are taking this opportunity of introducing ourselves as makers of SPRAYING OUTFITS as an adjunct to our many other lines. WE HAVE A CATALOGUE OF SPRAY PLANTS which should fill any requirements in the VINEYARD or ORCHARD, also for the BLOWFLY PEST.

Included in this list we have **Hand Power, Horse Tractor Power and Engine Power.** Our Pumps are standardized—all wearing parts are of **Brass and Bronze,** and easily replaced. We can supply Power Plants for narrow lands, which are equally safe in their operations in the hill districts, as in flat country.

**We ask you to write us for a complete Catalogue and state what your requirements are, so that we can advise you to the best advantage.**



*Catalogues posted free to any Address.*

METTERS LIMITED, 142 Rundle St., ADELAIDE, S.A.

Victorian and Tasmanian Agents—The FARM & PASTORAL SUPPLIES Pty. Ltd., 500-2 Bourke St., Melbourne.

# The Fruit Trade

*Market Reports and News Items.*

**REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS, Advertising in this Journal.**

**NEW SOUTH WALES.**

**Sydney.**
Chilton, F., City Fruit Markets.
Greenberg, S. & M., Fruit Markets.
Jenkins, John, Fruit Exchange.
Louey Pang & Samuel Wong Ltd., Thomas St., Haymarket.
Rule & Beavis, Fruit Exchange.

**VICTORIA.**

**Melbourne.**
Coastal Farmers' Co-op. Society, Western Market.
Colombie, H. G., 115 Hotham St., East Melbourne.
Cave, F., & Co., Melbourne.
Davis, J., Western Market.
Dennys, Lascelles Ltd.
I.F. & M. Co. Ltd.
Lister, G., Western Market.
Millis, A., & Sons, Western Markets.
Mumford, J. G., 449 Flinders Lane.
Pang & Co. Ltd., H. L., Little Bourke Street.
Silbert, Sharp & Davies, Western Markets.
Stott & Son, T., Western Markets.
Tim Young & Co., Western Market.
Vear, F. W., 49 William Street.
Wade & Co., H. M., 471 Flinders Lane.
Woolf, G., Western Market.

**QUEENSLAND.**

**Brisbane.**
Barr, A. S., Fruit Exchange.
Collard & Mackay, Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Finlayson & Son, Fruit Exchange.
Geeves, H. V., Fruit Exchange.
Robsons Ltd., Fruit Exchange.
W. J. Whitten & Co., Fruit Exchange.

**TASMANIA.**

**Hobart.**
Jones & Co. Ltd., H., Fruit Exporters.
Port Huon Fruitgrowers' Assoc.
Peacock & Co., W. D., Fruit Exporters, and at London.

**Launceston.**
Bender & Co. Pty. Ltd., 110 Elizabeth Street.

**WEST AUSTRALIA.**

**Fremantle.**
Simper, H. J. & F. Ltd.

**SOUTH AUSTRALIA.**

**Adelaide.**
Silbert, Sharp & Bishop Ltd.

**NEW ZEALAND.**

**Auckland.**
Radley & Co. Ltd., Fruit Auctioneers.
Turner & Growers Ltd., City Markets.

**Dunedin.**
Co-operative Fruitgrowers' of Otago Ltd.
Paterson, Thos., & Co., Vogel Street.
Reilly's Central Produce Mart.

**ENGLAND.**

**London.**
Bradnum, Jas.
Dennis & Cooper Ltd.
M. Isaacs & Sons Ltd.
Jacobs, E., & Sons, Covent Garden
Joel, R., & Sons, 16, 17, 20 Russell St., Covent Garden.
Margetson & Co. Ltd., Covent Garden.
Monro, Geo., Ltd., Covent Garden.
Poupart, T. J., Ltd., Covent Garden.
Ridley, Houlding & Co., Covent Garden.
Swann & Co., 3 Salter's Hall Court.

**Hull.**
White & Son Ltd.
B. & J. Shaw.

**Bristol.**
Bristol Fruit Brokers Ltd.

**Liverpool.**
Adam, James, Son & Co., 1 Temple Court.
MacGeorge & Jardi...

**Coventry.**
Boswell Bros. & L...s.

**Manchester.**
North of England Fruit Brokers Ltd. —Australian Agent, N. V. Wade, 8 Bridge St., Sydney, N.S.W.

**Southampton.**
Bristol Fruit Brokers Ltd.

**Newcastle.**
B. & J. Shaw.

**WALES.**

**Cardiff.**
Connolly, Shaw & Co.

**SCOTLAND.**

**Glasgow.**
Russell, Turnbull & Co.

**IRELAND.**

**Dublin & Belfast.**
Connelly, Shaw & Co.

**HOLLAND.**

**Amsterdam & Rotterdam.**
Algemeene Vruchten Import Maatschappy.

**DENMARK.**

**Copenhagen.**
Kobenhavns Fugtauktioner.

**GERMANY.**

**Bremen.**
Fruchthandel, Gesellschaft, Reps. Renne, Harris Pty. Ltd., 434 Collins St., Melbourne.

**Cologne.**
Algemeene Vruchten Import Maatschappy.

**Hamburg.**
A...heimer, P. H., & Son., Fruchthof.
A...meene Vruchten Import Maatschappy.
Lutten, J. H., & Co., Hamburg.
Stier, Aug., Fruchhof, Reps. J. B. Mills & Co., 9 Queen St., Melbourne.

## Australasian and Foreign Market Reports.

### AUSTRALASIAN APPLES IN HAMBURG.

**Review of the 1925 Season.**

An interesting review of the 1925 season for Australian and New Zealand Apples in Hamburg, issued by the Algemeene Vruchten Import Maatschappy, is to hand from Mr. H. G. Colombie, of E. Melbourne. The report states:—

We only had two direct steamers, viz.:—the "Otira" in April, and "Abbekerk" in June, with respectively 26,000 and 27,600 cases, all from the State of Victoria, except one thousand West Australians per "Abbekerk."

We further got on this market about 47,506 cases via England, ex various steamers, a few thousand every week. They came from all Australian Apple districts, including a few from New Zealand.

So the total quantity for the whole year amounts to 102,000 cases, whereas before the war our market consumed twice this quantity or more every year. We are sure that we could do with at least

**150,000 cases every year,**

and it should in any case be preferable to get as many direct shipments as possible instead of getting them via England.

During the season 1924-25 we got 325,000 cases, and 42,000 barrels (about 126,000 bushels) American Apples, making a total of about 450,000 bushels, mostly direct. This shows that our market can handle big quantities. This is quite natural, as it is the most favourably situated centre for re-export to the whole of Germany, Austria, Zchecho-Slovakia, Poland, the Baltic and Scandinavian States.

Another striking proof of the increasing importance of the Hamburg market is the import of Spanish Oranges. We imported more Oranges than any other port of the European Continent or the U.K., viz., 2,500,000 (over 7,000,000 bushels) cases (London coming second with about 2,250,000). This is about just 1,000,000 cases more than in the season 1923-24.

These figures prove that we had comparatively few Australian Apples. Notwithstanding this fact, the results have not always been as satisfactory as might have been expected. We shall try to explain the causes. In our opinion these are—

1. Our buyers did not yet appreciate the value of the various varieties.

2. The shippers do not exactly know the demands of this market.

To a certain extent the one is the consequence of the other. There was a very wide range in the prices, not only of the varieties, but also of the classifications and naturally especially in the beginning of the season. The prices obtained were:—

Jonathans, 7/6 to 27/- per case; Cleos., 13/- to 31/-; Munroes, 8/- to 29/6; Dunn's, 4/- to 28/-; and later on for Rymers, 14/- to 21/6; Rokewood, 11/3 to 20/-; Rome Beauties, 6/6 to 24/-; Statesman, 12/3 to 24/-; Sturmers, 8/- to 23/-; Stone Pippins, 16/6 to 29/-. So it is shown that our buyers are ready to pay very high prices for the fruit, which they know and like, and on the other hand that many varieties that were not known were neglected.

There was no demand for cooking Apples, which is not surprising, as these are produced in abundance in Germany and the surrounding countries. All inferior fruit, immature, defective, or blemished, is not in demand either.

The balance of this article, including varieties and sizes of fruits best suitable for this market will be published next issue.

## SOUTH AUSTRALIAN APPLES FOR GERMANY.

Messrs. Geo. Selth and McRae Ltd., of Adelaide (S. Australian agents for J. H. Lutten and Sons, Hamburg, and Fruchthandel Gesellschaft, of Bremen) advise that the prospects for choice Apples in Germany for the 1926 season are particularly bright. Direct shipment from Port Adelaide will be resumed for the first time since the war.

Prices last season for specially good Cleos., and Dunn's transhipped from Hull and Antwerp were good, from 18/- to 27/- being realised for special Cleos., Dunn's 14/- to 23/9, and some extra special Jonathans 18/- to 23/3.

Growers are advised to export only the choicest of their fruit, as it does not pay to send standard or plain grades, and only well shaped matured fruit of 2½ to 3 inches in Cleos. and Dunn's, and 2½in. to 2¾in. Jonathans should be sent.

Messrs. Selth and McRae Ltd. are arranging for a specially attractive package for export,—clean pine cases, with ends specially printed in neat colors, the head line of which will be "BRITISH EMPIRE PRODUCE." End of cases can be enamelled in a striking color at a trifling cost. Growers and all interested in the improvement of the get-up of Australian produce for export are advised to call and inspect the improved methods, which will apply also to dried fruits exported by this company.

Export of Apples to all British ports will be on a large scale, the markets in Hull, Liverpool, Newcastle-on-Tyne and London will all receive their share of South Australian Apples to be sold by the "White Service."

Crop prospects are good, and a bumper season is expected.

### New South Wales.

Mr. F. Chilton, City Fruit Markets, reports under date, 24/11/25:—

The demand for fruit generally can only be considered as fair, and not by any means as good as usually prevails at this period of the year. Oranges are in good supply. Apples have been supplied sufficiently for requirements.

Early varieties of Cherries have been seriously damaged by the recent heavy and widespread rains.

Queensland Fruits.—Bananas, 16/- to 28/- per case; Pines, smooth leaf, 10/- to 18/-; Tomatoes, 8/- to 15/- per half case; Passions, 16/- to 24/-. New South Wales Fruits.—Bananas, 16/- to 28/- per case; Lemons, 2/6 to 10/- per bushel case; Oranges, Valencia, 7/- to 10/-; common, 2/- to 8/-; Navel, 10/- to 20/-; Passions, 10/- to 30/- per half case; Tomatoes, colored, 18/- to 24/-; green, 10/- to 16/-; Apricots, 2/- to 12/-; Gooseberries, 3/- to 6/- per quarter case; Cherries, 2/- to 9/-. Victorian Fruits.—Apples, R.B., 9/- to 16/- per bushel case; M.F., 10/- to 14/-; Yates, 9/- to 17/-. Pears, Josephine, 14/- to 20/-; B.P., 11/- to 15/-. Tasmanian Fruits.—Apples, S.T.P., 8/- to 13/-; C.P.M., 11/- to 16/-; Dem., 12/- to 17/-; F.C., 10/- to 17/-.

### Victoria.

**Melbourne** (30/11/25).

The following were the prices ruling at the Western Market:—Apples—Good to choice eating, 6/- to 10/-; good to choice cooking, 6/- to 9/-; Bananas—Queensland, 16/- to 24/- double case; Cherries—Good to choice dark, cases, 10/- to 14/-; half cases, 6/- to 10/-; good to choice light, cases, 8/- to 12/-; half cases, 4/6 to 6/-; Gooseberries, 10/- to 12/-; Lemons — Victorian, 3/6 to 5/-; Oranges, Murray districts, 8/- to 10/-; other places, 6/- to 8/-; New South Wales, 7/- to 9/-; Pineapples, Queens, 16/- to 18/- double case; large, 15/-;

### Western Australia.

**Perth** (27/11/25).

Apples, Dunn's, 14/- to 21/3; Yates, 14/- to 20/9; Granny Smiths, 12/6 to 23/9; Rome Beauty, prime, 15/- to 16/9; Doherty, prime, 15/6 to 16/9; Rokewood, 8/- to 17/6; Delicious, prime, 16/9; Commerce, 14/- to 15/- (few at 19/-); Oranges, Navels, 10/9 to 18/9; dump bushel cases, others, 7/- to 10/-; Valencias, 3/6 to 8/-; flats, others, 3/- to 7/3; Mandarins, 8/- to 11/-; Lemons, 5/- to 9/3; Passions, 48/6; Loquats, 14/- to 19/6; Strawberries, 12/- to 14/6; special, to 18/6; Cherries, 25/- to 26/-; Peaches, 15/- to 15/6 half flats; Apricots, 15/- to 22/-; others, 7/- to 11/-.

### Queensland.

**Brisbane** (27/11/25/).

Prices for local fruits were:—Lemons, 3/6 to 5/- a half bushel case; Peaches, 3/- to 6/- a case; Plums, 6/6 a tray. Imported Fruit.—Apples, R.B., 17/- to 20/-; small, 8/- to 12/-; S.P., 14/- to 16/-; Yates, best, 16/- to 18/-; others, 10/- to 15/-; small, 3/- to 7/-; S.T.P., best, 16/- to 18/-; medium, 12/- to 15/-; small, 4/- to 8/-; Democrats, 18/- to 20/-; M.F., 10/- to 16/-; Pioneers, 15/- to 18/-; small Apples, 6/- to 10/-; medium, 10/- to 14/-; best, 17/- to 20/-; Pears, B.P., 16/- to 21/-; Oranges, best, 14/-; medium, 10/- to 13/-; Cherries, special, Florence, 15/- to 16/-; best, 10/- to 14/-; small, 6/- to 9/- a tray; Sydney Lemons, 12/- to 16/- a bushel case; Passions, 10/- to 13/-.

### South Australia.

**Adelaide** (28/11/25).

Fruit—Apples (eating), 14/- to 16/- per case; cooking, 10/- to 12/-; Apricots, 20/-; Bananas, 30/- to 32/-; Cherries, dark, 17/-; light, 13/-; Gooseberries, 8/-; Lemons, 6/-; Loquats, 10/- to 12/-; Nuts, Almonds, 10/- to 12/- per doz. lb.; Peanuts, 11/-; Oranges, common, 11/- per case; Navel, 16/-; Strawberries, 8/- to 10/- per doz. lb.

### Tasmania.

**Hobart** (21/11/25).

Democrats, fair, 13/6 to 14/6; medium, slightly marked, 6/3 to 10/3; C.P.M., fair, 12/- to 14/6; small and slightly marked, 8/- to 10/3; S.T.P., spotty and small, 4/- to 6/6; S.P.M., spotty, to 5/8; local Cherries, 24/6 to 25/6 per half case; Oranges, 11/- to 13/- case.

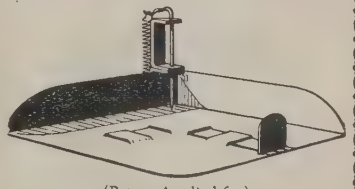
### New Zealand.

**Dunedin** (20/11/25).

Reilly's Central Produce Mart report under date, 20/11/25, fruits of all description are realising high prices.

Cherries, to 4/9; Lemons, S. Australian, to 22/6; Oranges, Adelaide Valencias, to 25/-; N.S.W. Valencias, to 22/6; Bananas, ripe, choice, to 35/-; Passions and Pineapples wanted; Christchurch Tomatoes, to 2/3; locals, to 2/7.


**The I.X.L. PAPER CONTAINER**



(Patent Applied for).

The **I.X.L. Wrapping Paper Container and Needle Grip** is easily adjusted for both Right and Left handed packers, and will take paper 8in. to 10in. in size.

**The Needle tears clean through the paper, and does not block or leave pieces.**

Supplied in 2 sizes to take ½ ream or one full ream.

Order now for coming season.

**Price, 10/-,**

Rail and Postage Paid to any address.

**A. POWELL**

**Mary Street, Blackburn, Vic.**

## BRITAIN'S GREAT INLAND PORT AND FRUIT MARKET.

### The Importance of Manchester.

(Contributed.)

Some people say that the Romans played an unkind trick by choosing the site for Manchester so far from the sea-coast; but some thirty years ago the citizens of that world-famed city were determined to make Manchester one of the foremost ports in Britain. The idea of bringing the sea to the doors of Manchester, some forty miles inland, was viewed by many with astonishment, and frankly thought to be an impossible ideal.

But the pioneers of the scheme to connect Manchester with the sea were men of courage and determination, as well as business ability. In the scheme they saw the creation of a great inland port in the centre of the busiest industrial area in the world, and after years of hard work organising the scheme, and obtaining the necessary support for it, they ultimately triumphed, and a waterway known as the Manchester Ship Canal was constructed at a total cost, including subsequent additions and improvements, of some £19,000,000, enabling great ships to pour out their cargoes into the heart of the city of Manchester.

Australian fruitgrowers can greatly assist their industry in its endeavour to find new or extended markets overseas by using this great waterway, and the fruit market at Manchester, which serves the vast population in the Northern and Midland Counties of England. Steamers sail regularly from the principal Australian ports for Manchester, and each year a greater number of Australian fruitgrowers and exporters are realising the advantage of shipping a bigger proportion of their fruit direct to this great inland port, and market, with its 10,000,000 consumers, within a 50-mile radius. The overseas freight from Australia to Manchester is the same as to any other British port, and the growers and exporters who avail themselves of this direct route to the consumers, are effecting a considerable saving in rail and handling charges which are incurred when fruit is shipped to other ports more distant from the great centres of consumption. For many years Manchester has been the second fruit market in the United Kingdom, and it is no uncommon thing during the green fruit season of upwards of 100,000 cases of fruit to be auctioned at the sales which are held twice a week in the Manchester Fruit Auction Rooms situated near the Docks, and sent forward immediately to various destinations in the 200 industrial cities and towns which are nearer to the port and markets of Manchester than to any other source of supply.


You can't possibly go wrong

If you invest

£5 ·15s.

in this valuable outfit—

THE

Steward

"Handy Worker"

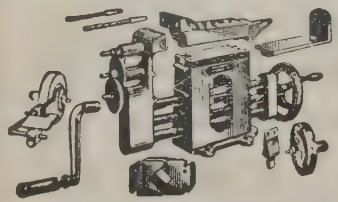
It will pay for itself ten times over by saving time and trouble on all your repairs and odd jobs.

GET ONE NOW FROM YOUR IRONMONGER

Or write to the Distributors—

McPhersons's Pty. Ltd.

COLLINS ST., MELBOURNE



SIX TOOLS IN ONE.






Why be satisfied with dwarfs and culls

Protect your fruit and rid your orchard and garden of Aphis and similar destructive insects at a cost of only a few cents a tree. "Black Leaf 40," the "Old Reliable" nicotine spray, is recommended by Agricultural Colleges and Experiment Stations. Spray singly or in combination with solutions for scale, codlin moth and other orchard pests.

*Sold by leading Australian and New Zealand Dealers*

Tobacco By-Products and Chemical Corp.
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Kills Aphis

"Black Leaf 40"
40% Nicotine